

COUNTY BOROUGH OF SOUTH SHIELDS.



REPORT ON THE
HEALTH OF THE BOROUGH
DURING 1903,

BY

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South Shields:

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INTRODUCTORY.

*To the Chairman and Members of the
Health Committee.*

MR. CHAIRMAN AND GENTLEMEN,

I have the honour to submit to you my third Annual Report on the Health of the Borough, being the 29th Report presented by successive Medical Officers. It is a pleasure to be able to say that in many respects the health of the town has been good. The death-rate of 17.1 per 1,000 is the lowest on record, and the death-rate from infectious disease—1.01 per 1,000—is eminently satisfactory.

If these figures were maintained, and we could point to them and say these were our average rates for a period of say ten years we might indeed congratulate ourselves. But we have to recognise that during the past twelve months many causes, over which we have little or no control, have aided us in our efforts. The meteorological conditions in particular—the phenomenally great rainfall, the absence of hot weather—have exercised a potent influence. The general death-rate throughout the country and the average death-rates in the Great and in the Small Towns have all fallen. There are exceptions, and some towns have not benefited to the same extent as others; some, of which South Shields is one, have benefited more than others. Our relative position is improved; instead of taking 64th place in the list of 76 Great Towns, we take 52nd place. But surely South Shields, with all its natural advantages, should achieve

a better place than this. Even in this good year our death-rate still stands 1 per 1,000 above the average of the Great Towns. That means death has claimed 100 more persons here than it does in a town of similar size, of average healthiness.

In attempting to improve the health of a community we have to take into consideration the two factors by whose inter-action disease is produced. Firstly, the seeds of disease, the microbes, about which so much is written nowadays, and secondly, the soil or the human bodies in which these seeds may either take root and grow, or by which they may be beaten off or destroyed. We must seek to weaken and destroy these microbes, and to prevent their spread from one body to another by isolation of the sick, by disinfection of infected rooms and clothing, and by maintaining strict cleanliness of both rooms and streets. On the other hand, we must endeavour to build up sturdy, disease-resisting human bodies. For this end it is necessary to secure plenty of sunlight and fresh air, nourishing food, well-built houses, and again strict cleanliness. Briefly put, that is the Gospel of Health, and it is on these lines that we must go if we wish to reduce the death-rate.

As regards details, I would refer you to the body of the Report, in which I have suggested a number of improvements. The most urgent requirements of the town, in my opinion, are (1) a properly equipped Fever Hospital; (2) Machinery for reducing the terrible scourge of tubercular disease.

In conclusion I should like to express my appreciation of the kind consideration and co-operation of your Committee during the year.

I am, Gentlemen,

Yours obediently,

JOHN J. BOYD, M.B., D.P.H.,

Health Office,

South Shields,

March 23rd, 1904.

REPORT, 1903.

VITAL STATISTICS.

AREA OF BOROUGH.—2,399 acres, including inland water (55 acres), but excluding foreshore and tidal water.

POPULATION.—The Registrar-General estimated the population of the Borough to be at June 30th, 1903, 105,325. The density of population per acre is nearly 44. Judging by the natural increase due to excess of births over deaths during the year, and by the number of new houses erected, I consider this probably correct within a very small margin. The estimated populations of the Wards are as follows :—

Shields	9,162	Westoe	13,730
St. Hilda	5,379	Laygate	9,842
Holborn	6,783	Rekendyke	11,728
Beacon.....	10,480	Deans	14,158
Bents	11,110	Tyne Dock	12,953

BIRTHS.—The number registered during the year was 3,635, being 124 *less* than during 1902. This gives a BIRTH-RATE of 34.5 PER 1,000 of the population. The births were comprised as follows :—

	Males.	Females	Totals.
Legitimate	1,791	1,739	3,530
Illegitimate	47	58	105
Totals	1,838	1,797	3,635

The percentage of illegitimate births was 2.9, which is the same as that for 1902.

DEATHS.—1,805 deaths were recorded as occurring in the Borough, 940 being males, and 865 females. The proportion of male to female deaths is thus 1,086 to 1,000.

This number, 1,805, *includes* the deaths of 146 persons who died in Harton Workhouse, 16 in Sedgefield Asylum, 2 in H.M. Prison, Durham, and 1 in Whiteleas Smallpox Hospital, who all belonged to the Borough, but at the time of their deaths were in these institutions on account of sickness or infirmity. The deaths of 29 persons who died in the town, but did not belong thereto are *excluded* from this number ("non-residents" v. Table IV.)

On this figure, 1,805, the DEATH-RATE is equal to 17.1 PER 1,000 of the population.

In order to arrive at a fair comparison with other towns in respect of death-rate, allowance has to be made for the different proportions of males and females, and of young and old persons living in the towns compared. A town like South Shields with a large proportion of adolescents and young adults amongst its inhabitants should, other things being equal, have a considerably lower death-rate than say Bath, where the opposite conditions prevail. In order to eliminate this difference in respect of age and sex, the crude death-rate must be multiplied by a certain figure, arrived at by comparing the death-rates at different ages throughout the country, and the relative numbers living at these different ages in England and Wales on the one hand, and South Shields on the other.

In the case of this Borough the factor is 1.0593, and if we multiply 17.1 by this figure we get the *corrected* death-rate, viz., 18.1.

TABLE COMPARING THE VITAL STATISTICS FOR 1903 OF
SOUTH SHIELDS WITH THOSE OF OTHER LARGE
TOWNS.

CITY OR TOWN.	Population, June, 1903.	Birth-Rate.	Gross Death-rate.	Corrected Death-rate.	Zymotic Death-rate.	Infantile Mortality-rate.	Average Death- rate 1893-1902.	Scarlet Fever Attack-rate per 1,000.	Scarlet Fever Death-rate per 1,000.
Birkenhead	113,598	30.8	16.8	17.9	2.06	156	..	..	..
Birmingham	533,039	31.7	17.2	18.5	2.3	158	20.0	5.3	0.27
Blackburn	131,079	25.2	15.7	17.7	1.7	158	20.3	2.5	0.09
Bolton	173,401	27.0	17.5	19.8	1.99	152	..	..	..
Bradford	283,412	23.3	16.2	17.9	1.3	148	18.2	2.9	0.10
Brighton	125,405	24.3	14.2	13.0	0.8	114	17.0	1.5	0.00
Bristol	338,895	27.3	14.2	14.5	1.1	116	17.3	6.4	0.14
Burnley	98,000	27.7	19.0	21.4	1.4	216	20.1	4.2	0.02
Cardiff	172,598	30.5	14.0	15.2	1.32	123	..	..	..
Derby	118,707	27.1	13.5	14.5	0.9	128	16.3	1.6	0.07
East Ham	110,451	34.4	11.4	12.1	1.5	113	13.6	5.9	0.11
Gateshead	115,531	35.8	16.7	17.6	1.87	159	..	..	..
Halifax	106,800	21.0	14.9	16.1	0.7	124	17.5	2.9	0.06
Huddersfield ...	94,963	23.8	16.7	17.9	.84	120	..	..	..
Kingst'n-on-Hull	249,639	31.2	16.6	17.0	2.2	162	18.1	1.9	0.02
Leeds	443,559	29.4	16.6	18.1	1.7	153	19.6	5.5	0.25
Liverpool	716,810	33.3	19.8	21.1	2.8	159	23.1	5.6	0.28
Middlesbrough ..	95,013	36.7	21.8	23.7	2.8	186	20.8	?	?
Northampton ...	89,960	24.4	13.5	14.0	1.2	137	15.6	7.4	0.27
Oldham	138,786	25.6	18.6	20.9	2.4	160	20.9	3.6	0.22
Plymouth	112,022	25.4	16.5	15.4	1.0	144	19.1	3.3	0.13
Preston	114,404	30.4	18.7	20.4	3.03	161	..	..	..
Rhondda	119,652	40.9	16.6	18.2	2.4	157	20.4	7.2	0.31
Salford	226,480	32.2	19.1	21.0	2.86	168	..	..	..
Southampton ...	110,120	28.8	13.8	13.7	1.31	114	17.4	3.9	0.07
South Shields	105,325	34.5	17.1	18.1	1.01	132	20.0	3.6	0.11
Stockport	95,709	31.6	20.0	21.5	2.52	184	21.7	5.9	0.30
Sunderland	149,572	35.1	19.9	20.5	2.37	157	..	..	..
Tottenham	117,797	29.5	10.7	11.5	1.4	124	14.1	2.7	0.03
Walthamstow ..	106,290	33.2	11.0	11.6	1.9	113	13.5	1.8	0.05
West Ham	281,894	33.6	15.5	16.5	2.6	148	18.9	2.3	0.05
Wigan	62,689	35.4	21.7	23.9	4.18	166	21.5	5.7	0.41
Wolverhampton	96,994	30.4	15.2	15.7	2.0	141	20.1	5.6	0.14

Death-rates and Birth-rates—per 1,000—throughout England and Wales for 1903 :—

	Birth-rate.	Death-rate.	Zymotic rate.	Infantile Mortality rate.
England and Wales	28.4	15.4	1.46	132
Rural England and Wales	27.3	14.8	1.08	118
76 Great Towns	29.7	16.3	1.89	144
103 Smaller Towns	27.4	14.6	1.41	135
Durham : Administrative County	35.8	17.7	2.01	161
South Shields	34.5	17.1	1.01	132

The death-rate, which is the lowest ever recorded in the Borough shows a marked improvement on that of last year, when it stood at 19.4. Such a difference in the death-rate means a *saving of approximately 240 lives in the course of the year*. The death-rate throughout the country was exceptionally low during 1903 ; and, notwithstanding our low rate, the above table shows that our rate was nearly 1 per 1,000 above the average of the 76 Great Towns..

Taking the 76 Towns individually we find the death-rate of South Shields is exceeded by 24 towns ; and in 51 the death-rate is lower than ours.

Our relatively unfavourable position is not due to the excessive prevalence of infectious disease, nor to a large infantile mortality. In respect of both, our position during last year is eminently satisfactory.

Comparing the prevalence of various diseases in this Borough with that in the general population, I find that the following causes give rise to an undue number of deaths in this Borough, viz. :—Tubercular Diseases, Meningitis, Nephritis, Dentition, Convulsions, Atrophy and Debility, Diarrhoea, Heart Disease, Bronchitis, and Accident. At all the different age periods our death rates are above that of the country generally. As far as adults are concerned, it would appear that Tubercular Disease, chiefly Phthisis, and Heart Disease, are the chief factors in producing the comparatively high death-rate.

As regards the distribution of the deaths in different quarters of the town (as shown on Tables II. and VI.), the rate varies considerably. Westoe, Deans, and Rekendyke Wards show the lowest death-rates, whilst St. Hilda and Holborn Wards are the highest. Different districts in these Wards also vary greatly.

INQUESTS were held regarding 77 deaths.

UNCERTIFIED DEATHS.—These amount in this Borough to more than 5 per cent. of the total deaths. During 1903 there were 93 deaths, the causes of which were not certified by a medical man. Nearly half (40) of these were infants under 1 year (v. Table and remarks on Infantile Mortality).

The 93 deaths were reported to the Coroner, who decided that no inquest was necessary.

It is noteworthy that whereas 5.3 per cent. of deaths in South Shields were uncertified, the average percentage in the 76 Great Towns was only 1.1 per cent.

The above facts point to a great deal of carelessness on the part of parents in obtaining proper medical advice for their children. With as large a proportion of instances where medical advice is never called in, it is a justifiable inference that in a still larger proportion such advice is only sought too late to be of any avail. It cannot be too widely understood that it is in the early stages of an illness that medical science is most useful.

INFANTILE MORTALITY.—The deaths of 479 children, under one year of age, were recorded during the year, yielding an INFANTILE MORTALITY RATE OF 132 PER 1,000 births registered. This rate is lower than any recorded since 1888, when it was 114 per 1,000. The preceding table (page 10) shows that it is considerably below the average of the Great Towns. The comparative lowness of this rate is principally due to the almost entire absence of Whooping Cough and Measles. This being so, the rate is evidently not so satisfactory as at first sight appears. The following are the principal causes of death :—

	No. of Deaths.	Rate per 1,000 Births
Prematurity and Congenital Defects	76	20
Diarrhœal Diseases	53	14
Convulsions	69	19
Debility and Inanition	96	23
Respiratory Disease	87	26

Deaths referred to the first category may be regarded as more or less unavoidable. The Respiratory Diseases are largely the sequelæ of Measles and Whooping Cough, and the heavy mortality from this cause is a natural consequence of the epidemics of these diseases which prevailed in 1902. On the other hand over 200 deaths are ascribed to Debility, Diarrhœa, and Convulsions. These Diseases, or the Malnutrition, of which they are symptoms, are very largely due to ignorant and improper feeding and generally to want of proper care on the part of mothers.

INFECTIOUS DISEASE (NOTIFICATION) ACT, 1889.

TABLE showing the number of notifications of the Notifiable Diseases, and the deaths therefrom during 1903 :—

Diseases.	Cases.	Deaths.
Smallpox	35	1
Scarlet Fever	378	12
Diphtheria	78	14
Membranous Croup	5	2
Typhus Fever . . . . .	..	..
Enteric (or Typhoid) Fever ..	58	9*
Continued Fever . . . . .	..	..
Relapsing Fever . . . . .	..	..
Puerperal Fever	6	2
Cholera . . . . .	..	..
Erysipelas	110	3*
Chickenpox	619	1
Totals	1,289	44
1902.	1,524	57

* Two Deaths—one from Enteric Fever and one from Erysipelas—occurred in Harton Workhouse in persons originally belonging to the Borough, and are not included here, as the cases are not notifiable to me.

The following Table shows the number of cases of Infectious Disease notified, and the months in which they occurred :—

1903.	Smallpox.	Scarlet Fever.	Diphtheria.	Membranous Croup	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Chickenpox.	Totals.
January	1	40	6	1	..	3	..	..	..	..	10	39	100
February	3	37	7	..	..	3	..	..	..	..	17	43	110
March....	13	29	4	..	..	5	..	..	1	..	10	69	131
April....	6	33	5	..	..	6	..	..	1	..	3	101	155
May	2	33	5	2	..	6	..	..	1	..	7	87	143
June ....	..	25	6	..	..	9	..	..	..	..	6	67	113
July ....	..	21	17	1	..	3	..	..	..	..	10	37	89
August .	7	30	7	..	..	4	..	..	1	..	6	20	75
Sept.....	2	48	6	1	..	6	..	..	..	..	15	21	99
October .	1	25	2	..	..	2	..	..	..	..	3	18	51
Nov. ....	..	32	3	..	..	7	..	..	1	..	15	59	117
Dec. ....	..	25	10	..	..	4	..	..	1	..	8	58	106
Totals .	35	378	78	5	..	58	..	..	6	..	110	619	1289
1902...	71	834	23	4	..	66	..	..	7	..	98	421	1524

The Notification Act, 1889, was brought into force within the Borough on May 1st, 1891. During the past ten years the notifications have been as follows :—

Disease.	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	Averages
Smallpox	14	22	12	3	6	2	2	..	71	35	17
Plague .....	..	..	..	..	..	..	..	..	..	..	..
Cholera .....	..	..	..	..	..	..	..	..	..	..	..
Diphtheria.....	41	27	31	35	16	28	23	30	23	78	33
Membranous Croup	5	8	8	3	1	5	6	5	4	5	5
Erysipelas	120	78	111	105	133	86	80	79	98	110	100
Scarlet Fever.....	713	386	482	638	633	669	511	1263	834	378	650
Typhus Fever .....	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	76	153	127	78	165	175	71	115	66	58	108
Puerperal Fever ...	7	4	4	9	8	4	4	5	7	6	6
Continued and Relapsing Fever ...	7	25	21	14	8	2	6	2	..	..	9
Chickenpox .....	..	..	..	..	..	..	..	..	421	619	520
Totals	983	703	796	885	970	971	703	1499	1524	1289	928*

* Excluding Chickenpox, which is only temporarily notifiable.

ZYMOTIC DISEASES.—The seven principal Zymotic Diseases accounted for 107 of the deaths, as follows :—

Smallpox.	Scarlet Fever.	Diphtheria & Membranous Croup.	"Fever."	Measles.	Whooping Cough.	Diarrhoea.
1	12	16	10	15	3	50

The death-rate for the seven principal Zymotic Diseases was 1.01, as compared with 2.62 for the previous year.

ZYMOTIC RATES—PER 1,000 OF THE POPULATION.

YEAR.	Smallpox.	Scarlet Fever.	"Fever."	Diphtheria and Membranous Croup.	Measles.	Whooping Cough.	Diarrhoea.	Total Zymotic-rate.
Mean 1871-80 ..	.85	1.44	.79	.12	.42	.78	1.59	6.02
Mean 1881-90 ..	.01	.45	.19	.10	.34	.44	.78	2.34
1891 .....	.00	.11	.20	.29	.90	.60	.73	2.85
1892 .....	.00	.12	.21	.09	.29	.33	.55	1.66
1893 .....	.036	.38	.37	.02	.38	.36	1.56	3.18
1894 .....	.00	.39	.20	.04	.19	.17	.42	1.36
1895 .....	.00	.18	.34	.08	.29	.90	1.42	3.36
1896 .....	.00	.18	.28	.04	.92	.42	.58	2.49
1897 .....	.00	.15	.16	.06	.28	.25	.88	1.83
1898 .....	.00	.25	.39	.00	.56	.77	1.11	3.09
1899 .....	.00	.21	.47	.02	.04	.12	1.41	2.33
1900 .....	.00	.21	.19	.09	.55	.67	.55	2.33
Mean 1891-1900	.003	.21	.28	.07	.44	.45	.92	2.44
Mean 1871-1900	.291	.70	.42	.10	.40	.56	1.10	3.60
1901 .....	.00	.60	.22	.14	.68	.10	1.60	3.36
1902 .....	.039	.38	.06	.06	.92	1.01	.16	2.62
1903 .....	.009	.11	.09	.15	.14	.03	.47	1.01

The Zymotic Death-rate—that is the death-rate due to acute infectious disease—is therefore only 1.01 per 1,000. This must be considered very satisfactory. It is the lowest ever attained in the Borough since 1871, before which year there is no record. Of the 76 Great Towns, South Shields takes the 17th place (see also Table on page 9). All the individual diseases show a low rate except Diphtheria, which is about double the average.

Smallpox.—35 cases of this disease were notified during the year, and of these one died. One of the notified cases proved not to be Smallpox.

ORIGIN OF CASES.—The disease was introduced into the Borough on at least six different occasions. It never, however, obtained any hold. Its introduction in the beginning of January appeared to be due to a tramp who had passed a night in the common lodging house in which the first notified case evidently contracted the infection. After an interval of about a month four more cases were notified, three evidently from a common source of infection, and all four possibly connected with the January case through some person suffering from an unrecognised attack. From one of the cases in this February group (a woman of ill fame, residing in one of the most squalid districts in the Borough) there arose certainly eight, and probably 19 cases which continued to crop up till the end of April. With the exception of a foreign sailor who had come from a ship lying in Blyth harbour, and had only been a few hours in the town when he was notified, the Borough remained free from the dreaded disease until August. Three separate invasions appeared to take place in this month, and in one instance the primary case was followed by two secondaries.

In September two cases were notified which apparently derived the infection from North Shields. No further cases occurred during the remainder of the year, the case notified in October proving not to be Smallpox.

Thirteen of the total thirty-four may be classed as Primary, not being infected from any known case within the Borough, whilst the remaining 21 were Secondary to previous known cases within the Borough. Fifteen of the Secondary cases were under the observation of the Health Department at the time the first symptoms of the disease appeared, and were notified by the Medical Officer or his deputy.

SMALLPOX IN 1903.

Date of Invasion	Source of Infection.	No. of Primary Cases.	No. of Secondary Cases.
Jan. 4	Supposed Tramp (undiscovered) ..	1 (and 1 in Work-house notified in Rural District)	0
Feb. 25	Probably indirectly connected with January case	4	19
May 29	Patient, a sailor infected in Spain ..	1	0
Aug. 12	? Conveyed by father who was employed on river	1	2
Aug. 22	Common source, ? North Shields ..	3	0
Aug. 22	Spennymoor	1	0
Sept. 2	? North Shields	1	0
Sept. 12	? North Shields	1	0
		13	21

During the month of June intimation was received by me that a large quantity of milk, sent into the town from Cumberland, was believed to be infected with Smallpox. The facts were that a man with the Smallpox rash out on him had been engaged for several days milking cows at one of the farms from which the implicated milk was drawn. By the time the information reached me the milk had all been sold, and it was impossible to trace the consumers. Disinfection and other precautionary measures were carried out at the restaurants affected, and we awaited events with considerable anxiety. However, the infected milk proved absolutely barren of results.

MEASURES TAKEN TO CHECK THE SPREAD OF THE DISEASE.— During the year 303 persons who were known to have been in contact with cases of Smallpox, were kept under observation by the officials of this Department. In 212 cases the contact had taken place within the Borough, and in 91 cases outside the Borough; the names of the latter group were supplied by other health authorities. Vaccination was urged upon all contacts, but only a small number accepted it. None of those re-vaccinated developed the disease, whilst 15 of the others were attacked. In all instances the cases were seen by the Medical Officer before removal to Hospital, either before or after notification. In every instance the other members of affected families were removed to the disinfecting station at Whiteleas for the purpose of thorough disinfection of their persons and clothing, and during their absence thorough disinfection of their houses was carried out. In all 101 persons were so treated. 13 persons were removed to Hospital suffering from suspicious symptoms, 7 of whom later developed the disease.

The following Table shows the condition as regards vaccination of 36 patients treated in the Whiteleas Hospital :—

Vaccination.	Years of Age.					Totals.
	-5	5-10	10-20	20-40	40+	
Marks : 1 .....	..	..	1	3	2	6
2 .....	..	..	..	2	*3	5
3 .....	..	..	..	*1	..	1
4 .....	..	..	2	5	..	7
No Marks .....	..	1	..	1	..	2
Do. ? Vaccination .....	..	1	..	1	..	2
Infancy, unsuccessful .....	..	..	2	..	..	2
Not Vaccinated	2	4	2	2	1	11
Totals	2	6	7	15	6	36

* One of these belonged to Harton Workhouse and another to Hebburn

Of the eight children under 10 years, it will be noted that six were stated by their parents to be unvaccinated. In the other two there were no marks of vaccination. There were only six severe cases, five being unvaccinated, and one, a man of 37 years of age, having one mark. The only death was that of an unvaccinated child of two years of age.

Besides dealing with actual cases as they occurred every effort was made to prevent the introduction of the disease, to facilitate its detection if unfortunately introduced, and to protect the community against its spread.

Particular attention was paid to the Common Lodging Houses, warning notices being issued to the proprietors of these houses, and frequent visits of inspection being made by the Sanitary Inspectors. I also recommended the appointment of a special temporary inspector for this purpose, a suggestion which was not, however, carried out. A circular letter was addressed to all large employers of labour asking their co-operation in the detection of ambulatory cases, and describing the symptoms to be looked for. Towards the end of the year the following notice was prepared by the Medical Officer and posted up throughout the town :—

SMALLPOX AND RE-VACCINATION.

The inhabitants of this Borough are hereby Warned that Smallpox is now Prevalent in several of the neighbouring Towns and Villages, and that the approach of the cold weather is likely to cause a further spread. Already a few cases have occurred in South Shields, and there is no doubt but that it will be frequently introduced into the town during the next few months. In Trams, Trains, Shops, or Places of Public Amusement, anyone may unknowingly come in contact with someone suffering from the Disease. There is only one way by which you can protect yourselves, this is by Vaccination and Re-vaccination.

As one proof of the many that may be given of the value of Re-vaccination, please note that the Staff of the Health Department and the Nurses at the Smallpox Hospital, although in the closest contact with the disease never take it. They are protected by Re-Vaccination. All persons who have not been vaccinated within the last ten years should be Re-Vaccinated. All persons are further warned that they must immediately report to the Medical Officer of Health any case of this disease, however mild, occurring in their families or houses. Failure to notify will entail a PENALTY OF £2.

All cases where there is even the slightest suspicion of Smallpox must be notified. The symptoms of this disease which should raise suspicion are the appearance of Spots on the Face, Hands, and Wrists, particularly when they are noticed after a "Feverish Cold," with pains in the Back and Limbs.

In such cases Medical advice should be sought at once, and at the same time Notice should be sent to the Health Office, Russell Street.

Free Vaccination and Re-Vaccination is performed by the Public Vaccinators :—

Dr. L. A. McNABB, Meldon Terrace.

Dr. E. H. GIBBON, Laygate Lane.

Dr. F. W. GIBBON, Hudson St., Tyne Dock.

JOHN J. BOYD, M.B., D.P.H.,

Medical Officer of Health.

Health Office, Russell Street.

South Shields.

Chickenpox was kept on the list of notifiable disease throughout the year, and two or three cases of Smallpox were first reported under this name. As stated elsewhere, 619 cases of Chickenpox were notified by medical men ; 54 cases were reported by parents and all verified by the medical officer, and a large number were reported by the school authorities, and similarly verified or negatived. I took frequent opportunities during the year of urging the importance of Vaccination and Re-Vaccination as a preventive of this disease. During the year 3,167 primary vaccinations were performed.

The year has been a very anxious one owing to the constant presence of the disease, if not always in our midst, at least in the immediate vicinity. At the end of the year, unfortunately, it is still very prevalent on Tyneside.

There appears to be ample evidence that Smallpox has been introduced from one locality to another very largely by the agency of tramps and casual labourers suffering from the disease in a mild form ; and it is most desirable that steps should be taken by the Imperial Government to control the movements of these parasites on society, or at least render them harmless by compulsory re-vaccination. On the other hand, if only the community were protected by vaccination and re-vaccination the spread of the disease would be rendered impossible.

Scarlet Fever.—378 cases of this disease were notified during the year, and 12 deaths occurred. The distribution of the disease in the several Wards, and during the different quarters of the year is shown in the following Table :—

SCARLET FEVER during 1903, distributed according to Wards and Quarters.

	Shields.	St. Hilda.	Holborn.	Beacon.	Bents.	Westoe.	Laygate.	Rekendyke.	Deans.	Tyne Dock.	Totals.
1st Quarter	6	4	5	18	8	27	8	3	13	14	106
2nd "	8	1	4	11	3	15	8	11	21	9	91
3rd "	3	8	6	11	19	16	8	13	7	8	99
4th "	4	7	2	11	11	18	2	6	8	13	82
Totals	21	20	17	51	41	76	26	33	49	44	378
Estimated Population to June 30th	9,162	5,379	6,783	10,480	11,110	13,730	9,842	11,728	14,158	12,953	105,325
Attack-rate per 1,000 Population	2.2	3.5	2.5	4.8	3.6	5.5	2.6	2.8	3.4	3.4	3.6
Mortality per cent. of Cases	0.0	5.0	0.0	2.0	5.0	6.6	0.0	3.0	2.0	2.3	3.2
Death-rate per 1,000 Population .....	.00	.18	.00	.09	.18	.36	.00	.09	.07	.08	.11
% of Cases removed to Hospital	90	95	95	47	53	60	88	93	63	89	71
Average Attack-rate for 1901, 1902 & 1903	5.3	5.8	5.2	9.0	7.9	11.8	7.7	9.0	9.3	6.1	8.0

Attack-, Death-, and Mortality-rates from Scarlet Fever since 1892, with average at foot for comparison :—

Year.	Population.	Attack-rate per 1,000 Population.	Death-rate per 1,000 Population.	Mortality Rate % of Cases.
1892	80,530	4.8	.12	2.5
1893	82,284	7.4	.38	5.2
1894	84,077	8.4	.39	4.6
1895	85,910	4.4	.18	4.1
1896	87,785	5.4	.18	3.3
1897	89,699	7.1	.15	2.2
1898	91,656	6.9	.25	3.6
1899	93,657	7.1	.21	3.0
1900	95,703	5.3	.21	4.1
1901	97,800	12.5	.60	4.7
1902	103,330	8.0	.38	4.7
Av. 1892-02	..	7.0	.28	3.8
1903	105,325	3.6	.11	3.2

Both the attack-rate, 3.6 per 1,000, and the death-rate, .11 per 1,000, are the lowest ever recorded in the Borough, and are less than half the averages of the preceding decade. The Wards which suffered most heavily were Westoe and Beacon. 71 per cent. of the total cases were removed to Hospital. The proportion varied in the different Wards, as shown in the Table, from 47 to 95 per cent. Generally speaking, the Wards in which the largest proportion of cases were removed to Hospital suffered least.

Of the 378 cases notified, one proved not to be Scarlet Fever, and one which was notified in a doctor's surgery, having come from an adjoining district with the rash out should not be credited to the Borough. Of the remaining cases, 279 were primary ; and 97 were secondary to others in the same house. 38 of the secondary cases were notified at the same time as the primary ; 32 occurred in houses

from which the primary case had been removed to Hospital; 10 occurred in houses where the primary case had been kept at home, and 17 were "Return" cases, occurring in houses to which a case had been discharged from Hospital. Of 554 susceptible children (*i.e.*, children under 16 years of age who had never had Scarlet Fever) in the invaded houses, 97 developed the disease, being 17.5 per cent.

When the primary case was sent to Hospital only 15.6 per cent. of the susceptibles were attacked; whilst where the primary case was kept at home 22 per cent were attacked. When it is borne in mind that the cases taken to Hospital were from the small crowded houses, whilst those left at home were so left on account of the ampler accommodation and smaller families, the advantages of Hospital isolation in so far as the individual house is concerned will be appreciated. The average accommodation where the case was removed to Hospital was 3.15 rooms; where case was left at home it was 4.46 rooms; whilst the average number of children was 3.4 and 2 respectively. In a number of instances the cases were at first reported as suspected only, and were visited by the Medical Officer. By this means certain mild cases, which might otherwise have escaped notification and isolation, were secured and prevented from carrying the infection far and wide.

Every effort was made to remove cases to Hospital at the earliest possible moment. As regards disinfection, in addition to fumigating the infected rooms with sulphur, spraying of the walls with a solution of perchloride of mercury was in many cases resorted to, and tenants were advised to re-paper and whitewash.

Typhoid Fever.—58 cases of Typhoid Fever were notified during the year, and of these 9 died. One other death from the same disease, of a person belonging to the Borough, took place in Harton Workhouse. The death-rate from this disease was .09 per 1,000, and was lower than in any year except 1902, when it was .03; and 1885, when it was also .09.

Of the total, 6 had evidently been infected outside the Borough. Four of the other cases notified proved not to be typhoid. There were thus only 48 cases that had been infected within the Borough. These occurred in 44 different houses. The distribution of such infected houses in the different Wards is shown in the Table below :—

WARD.	Primary Cases.	Attack Rate.
Shields	3	3.2 per 1,000
St. Hilda	2	3.7 "
Holborn	2	2.9 "
Beacon	1	.9 "
Bents.....	4	3.6 "
Westoe	6	4.3 "
Laygate	9	9.1 "
Rekendyke	5	4.2 "
Deans	7	4.9 "
Tyne Dock	5	3.8 "
TOTAL	44	

In only three instances were there found to exist in these dwellings such insanitary conditions as could be supposed to have any share in causing the illness. These defects comprised foul and insanitary water closets and defective yards, and were all remedied.

Of the 44 cases, 12 only were females. 16 of the cases were children under 16, and not employed in wage earning occupations. Of these 10 were males and 6 females. 22 of the cases were in the persons of men and boys employed in wage earning occupations outside their homes. Of the six adult female cases, three were distinctly secondary to male relatives, and the other three were more or less doubtful.

Of the 16 school children, three were very doubtful cases ; three were probably infected at school, and one outside the Borough ; three occurred in Shields Ward in houses where insanitary conditions existed.

Of the 22 wage-earning males 7 were employed in coal mines, and three were boiler cleaners.

It therefore appears that over 30 per cent. of the wage-earning males affected were employed in coal mines. As only 8 per cent. of the male population over 15 years are employed in the coal mines, this shows an undue incidence of the disease on this portion of the population. I have also observed several instances of infection apparently carried from one worker to another on the same shift in the mine. There can be no doubt that the entire absence of sanitary conveniences below ground must facilitate the spread of this disease (the infection of which is chiefly present in the excreta) when any infected person is employed in a mine.

Apart from occupation there are two districts in which this disease is specially prevalent :—

(1). Laygate Ward, the portion lying west of the railway line : here there occurred eight cases, only one being engaged in coal-mining.

(2). The district on either side of Bertram Street at its west end, lying partly in Rekendyke and partly in Deans Wards.

The same districts were specially affected last year. It will be noted that the improvement mentioned as having taken place in Tyne Dock Ward during 1902 continued in 1903.

The factors which appear to me to cause the special prevalence of this disease in the above districts are these :—

(1). The fact that the houses are built on “ made ” land. The natural clay soil of these districts has been excavated and replaced by more or less offensive organic material, which forms a soil in which the bacilli of typhoid may maintain a footing.

(2). In the Laygate district the houses have been built without the layer of concrete below the floors, now prescribed by the Building Bye-laws, and in most of them there is no ventilation under the floors.

(3). The back and front streets in the Laygate district are very dirty ; owing to the rough cobble paving now getting more rough and irregular than when first laid down, efficient scavenging is impossible ; and constant fouling is taking place from the insanitary ash-closets, and owing to the careless and dirty habits of the people.

As far as the first of these factors is concerned, time is the only force that can be relied on to purify the sub-soil. But it is of the greatest importance that strong measures should be taken to prevent similar excavations and deposits in the neighbourhood of a growing town.

When natural hollows require to be filled up no organic matter should be deposited, but only harmless mineral matter.

With regard to the old houses without concrete basement we are gradually enforcing proper ventilation beneath the floors, and where the floors are sufficiently bad to require renewing, the opportunity can be taken to have concrete laid beneath.

Most important of all, perhaps, is the cleanliness of the streets. I strongly advise that some of the worst of these should be re-paved, and that the paving be asphalt or concrete, which are the only pavings that permit thorough cleansing and prevent absorption of filth. There may be certain objections to this form of paving, but I contend that the advantages far outweigh them. We already insist on the concrete paving for private yards, and it is equally necessary for back lanes. I would also urge the extreme desirability of steps being taken to replace the present conservancy by the water carriage system.

Infantile Diarrhœa.—This disease was responsible for 50 deaths during the year, giving a rate of .47 per 1,000. This rate, though three times as great as last year is just about half the average rate of the decade 1891-1900. The low rate is no doubt again mainly attributable to the absence of warm weather during last summer. The distribution of the deaths in the different Wards is given in Table II., but it may be noted that the two districts mentioned above as specially liable to enteric fever, together with that part of Westoe Ward lying between Westoe Lane and Chichester Road have suffered most from diarrhœa during the year. The same areas suffered most heavily in 1901 and 1902. The conditions which favour typhoid fever are also favourable to the spread of the infantile complaint. Both are to a large extent filth diseases, and their occurrence might be largely prevented by a higher standard of cleanliness both in the houses and in the streets. In the case of Diarrhœa, the nature of the food and the methods of preparing it are also of very great importance, and as remarked elsewhere a great deal of ignorance prevails amongst mothers on these points. By the courtesy of the Registrar of Births, a brief 'notice' drawn up by myself, on the subject of the feeding of infants is given to everyone registering a birth. It is to be hoped that a certain number of these are read and taken to heart, but this is a very poor substitute for instruction by the living voice. In the many towns where lady sanitary inspectors have been appointed, one of their duties is the visiting of houses where births have occurred to give such advice.

Diphtheria and Membranous Croup caused 16 deaths during the year, giving a death-rate of .15 per 1,000, or about twice as great as the average for the decade 1891-1900. 83 cases were notified during the year. The Wards specially affected were Beacon, Westoe, and Deans. It is particularly noteworthy that it was chiefly the children of fairly well-to-do people that were attacked. The cases in Westoe Ward were found, with one exception, to the east of Imeary Street, and to the south of Meldon Terrace. Again, in the Beacon Ward, the cases were chiefly in the south-eastern

quarter ; whilst in Deans Ward the district affected was that lying near Westoe Parade.

These 83 cases occurred in 70 different houses. In one instance the infection was undoubtedly acquired outside the Borough. Of the other 69, there were 39 school children affected, 20 children under school ages, and 10 adolescents or adults.

Various sanitary defects were found in 19 of the affected houses, and were remedied. In most cases, however, the sanitary defects, even when present, could not be looked upon as in themselves the principal cause of the disease. In July a certain dairy-farm was found to be supplying a number of the affected families ; and on inspection I found a decidedly insanitary condition of affairs. The dairyman was instructed to use special precautions, and was served with notice to construct a proper manure pit, pave yard, and improve drainage, and this work was carried out. My observations inclined me to the view that this disease was, however, chiefly spread by personal contact, either at school or during playtime.

Three schools came under suspicion during the year as having an exceptional number of cases ; but as they are the schools chiefly serving the specially affected districts mentioned above, and the cases were rarely found to belong to the same class, there was little evidence that the schools were to blame. A large number of the cases were verified by bacteriological examination before or after notification. Intimation was also made to medical men having such cases under their charge, that it was highly desirable that a further bacteriological examination should be made before the patient was released from isolation, and such examination was, in a number of instances, carried out. Probably the nature of the meteorological conditions which prevailed during the year, especially the excessive amount of wet weather was partly responsible for the exceptional number of cases of this disease. The County of Durham also suffered more than usual from Diphtheria during the year. The large proportion of deaths to cases, 19 per cent., must be attributed in a considerable degree to the absence of trained nursing. None of the

cases were removed to Hospital on account of the absence of accommodation. Such accommodation is urgently required. Diphtheria is a disease which varies enormously in severity, and there is great danger, particularly in schools, of children with what appear to be trivial sore throats, really suffering from it in a mild form, and infecting others with a severe attack. It is desirable that much stricter precautions should be taken by the education authority to detect and determine the nature of all sore throats occurring amongst school children. Another factor which, I believe, plays an important part in the causation of this disease is the dampness which is so frequently found in new houses, and the sodden state of the ground in the neighbourhood of the same. It is the commonest thing for houses to be occupied months before the streets on which they stand are paved. Such occupation should not, in my opinion, be allowed.

Measles was the cause of only 15 deaths during the year, as compared with 95 last year. 233 cases were reported by the school authorities during the year. Twelve of the deaths occurred in the first half of the year, and formed the end of the 1902 epidemic. In the latter half of May there was an outbreak in the Harton National Infants' School, the children affected being principally resident in Green Lane and neighbourhood. Twenty-eight cases were reported by the school authorities between 13th May and 3rd June. On the latter date the school was closed for three weeks, and children residing in the affected district were excluded from all schools in the town. At the same time warning notices were posted up in the affected districts. These measures were happily successful in preventing any further spread of the disease ; and in the last quarter of the year it was practically absent from the Borough. All reported cases were visited by the sanitary inspectors, and printed instructions were given to the parents. Where no doctor was in attendance I personally visited and examined the case.

Whooping Cough was only responsible for three deaths during the year, a marked contrast to last year, when the deaths numbered 104. 21 cases were reported by the school authorities. The death-

rate of .03 per 1,000 is the lowest on record. The disease was practically absent from the Borough throughout the year. Early in December about a dozen cases were reported by the authorities of Laygate Lane Infants' School. On the 15th December two classes, comprising 111 children, were closed on my advice for a period of four weeks. So far this action appears to have checked the further progress of the disease.

SCHOOLS AND INFECTIOUS DISEASE.—As mentioned above, we are indebted to the school authorities for a great deal of information respecting infectious disease. The names of altogether 515 children were sent by the school authorities to the Health Department during the year as suspected to be suffering from infectious disease. These cases were investigated by myself and the sanitary inspectors, and reports were sent to the schools. Whilst quite appreciating the way in which the educational authorities have co-operated with the Health Department in the effort to prevent the spread of infectious disease, I think that the relationship ought to be even more intimate than it is. There should be a regular systematic examination of children attending the schools to detect the earliest symptoms of infectious disease, and when any suspicious symptoms are observed a medical opinion should be obtained. There should also be some supervision over the general physique of the children, and instruction in physiology and hygiene should be made a compulsory subject. The congregating of very young children ranging from 3 to 5 years in crowded class rooms appears very undesirable, and is largely responsible for the epidemics of Measles and Whooping Cough which periodically visit the town.

Tuberculosis.—This disease caused altogether 251 deaths in the Borough during the year, made up as follows :—

Pulmonary Tuberculosis.....	176
Tabes Mesenterica	13
Tuberculosis of the Nervous System (Meningitis, etc.).	32
Other Tubercular Diseases	30

The total number is exactly the same as last year, so, allowing for an increase of some 2,000 in the population there is a slight improvement. The death-rate from Phthisis alone is **1.6 per 1,000**. Of the 176 deaths from Pulmonary Tuberculosis, 144 were between the ages of 15 and 65, *i.e.*, during the most active and useful time of life ; 99 were males, and 77 were females.

All these deaths were investigated during the year ; relatives were advised regarding disinfection, and disinfectants were supplied. 49 parcels of clothing were removed for steam disinfection. In 61 cases it was found that other members of the family had died of the disease. As regards occupation details are given in the list which follows :—

PHTHISIS DEATHS DURING 1901 TO 1903.

OCCUPATION.	MALE.		FEMALE.	
	1901 & 1902.	1903.	1901 & 1902.	1903.
Agent : Insurance.....	1	..	..	..
Baker	1	..	..	..
Barber	5	2	..	..
Barman	5	2	..	..
Billposter	1	..	..	..
Blacksmith	1	2	..	..
Block and Mast Maker	1	..	..	..
Bricklayer	5	1	..	..
Butcher .....	..	1	..	..
Canvasser .....	..	..	1	..
Cartman	4	..	..	..
Carpenter	6	2	..	..
Clerk	9	2	..	1
Coal Miner	6	7	..	..
Coal Merchant	1	..	..	..
Coal Staithesman	1	..	..	..
Coal Trimmer	2	3	..	..
Colliery Wagonwayman	1	..	..	..
Commercial Traveller.....	1	..	..	..
Diver .....	..	1	..	..
Dock Stevedore	2	..	..	..
Domestic Servant .....	..	..	2	3
Draper	1	..	..	1
Drayman	1	..	..	..
Dressmaker .....	..	..	..	1
Engine Driver	2	1	..	..
Engineer	1	1	..	..

PHTHISIS DEATHS.—*Continued.*

OCCUPATION.	MALE.		FEMALE.	
	1901&1902.	1903.	1901&1902.	1903.
Engineer (Electrical) .....	..	1	..	..
Engineer (Marine)	4	2	..	..
Errand Boy .....	..	1	..	..
Foyboatman .....	..	1	..	..
Furnaceman .....	..	1	..	..
Glassmaker	3	..	..	..
Grocer	2	1	..	..
Greengrocer	1	..	..	..
Hawker	1	..	..	..
Horsekeeper	1	1	..	..
Housewife .....	..	..	47	43
Irondriller	1	..	..	..
Ironmonger	1	..	..	..
Joiner	5	2	..	..
Labourer (Dock)	5	2	..	..
Labourer (General)	23	12	..	..
Labourer (Shipyards)	3	2	..	..
Laundress .....	..	..	..	1
Mineral Water Worker	2	..	..	..
Officer of Board of Trade .....	..	1	..	..
Painter	3	2	..	..
Patternmaker	1	..	..	..
Photographer .....	..	1	..	..
Physician	1	..	..	..
Pilot .....	..	1	..	..
Plasterer	1	..	..	..
Plumber	2	..	..	..
Railway Guard	1	..	..	..
Rivetter, Boilermaker, &c.	7	5	..	..
Sailmaker .....	..	1	..	..
Seaman	13	4	..	..
Sea Fireman	9	5	..	..
Sea Steward	2	1	..	..
Sea Donkeyman	1	1	..	..
Scholar	12	5	14	9
Schoolmaster	1	..	..	..
Shoemaker	2	2	..	..
Shop Assistant .....	..	..	2	..
Steamboatman .....	..	1	..	..
Stonemason .....	..	2	..	..
Tailor	1	1	..	..
Tram Conductor	2	..	..	..
Wharfinger	1	..	..	..
None: Adults	9	..	73*	11
" Children	14	9	12	7
Unknown .....	..	6	..	..
Totals	193	99	151	77

TOTALS { 1901 160
1902....184
1903....176

*Mostly Housewives.

DEATHS FROM TUBERCULAR DISEASES in South Shields during past 11 years.

Year.	Phthisis.	All Causes.	Phthisis % of all Causes.	Tubes. Mes.	Tuber. Men. and Hydrocephalus.	Other Tuber.	Total Tuber. Diseases other than Phthisis.	Tub. Dis. (other than Phthisis), % of Deaths from all Causes.	All Tuber. Diseases.	All Tub. Dis., % of Deaths from all Causes.
1893	164	1858	8.82	35	23	48	106	5.68	270	14.5
1894	119	1470	8.09	7	24	39	70	4.71	189	12.8
1895	143	1845	7.75	25	20	49	94	5.05	237	12.8
1896	142	1628	8.72	19	34	45	98	5.98	240	14.7
1897	126	1558	8.09	14	28	42	84	5.31	210	13.4
1898	145	1988	7.29	18	16	48	82	4.11	227	11.4
1899	142	1937	7.33	23	20	23	66	3.40	208	10.7
1900	176	2077	8.42	19	30	28	77	3.77	253	12.1
1901	160	2028	7.89	31	16	24	71	3.50	251	11.3
1902	184	2011	9.15	5	31	31	67	3.33	251	12.5
Averages 1893-1902.	150	1840	8.15	19.6	24	37.7	81.5	4.48	231	12.6
1903	176	1805	9.8	13	32	30	75	4.15	251	13.9

Average Death-rates from *Phthisis* per 1,000 of the Population—

1871-80	.....	1.91
1881-90	.....	1.84
1891-00	.....	1.60
		1.78 mean.

The above Table shows that the death-rate from Tubercular Disease is not diminishing as rapidly as the general death-rate. The rate this year for Phthisis is the same as the average for the decade 1891-1900, and is only 13 per cent. less than it was in the seventies. During the same period the death-rate from this disease in the country generally has fallen from 2 per 1,000 to 1.3 per 1,000, a decrease of over 30 per cent. It appears, therefore, that South Shields, though showing a slight improvement in this respect is not by any means keeping pace with the progress made in the country generally. There is no doubt stronger action must be taken to combat this dreaded disease. Notification, prevention of indiscriminate spitting, and hospital accommodation are the weapons which are available.

THE BOROUGH HOSPITALS

FOR

INFECTIOUS DISEASES.

DENES HOSPITAL.—306 patients were admitted to this Hospital during the year. Owing to the comparatively low prevalence of Scarlet Fever, we were able, for the first time for many years, to admit all the cases in which Hospital isolation was desirable. The Scarlet Fever Wards were kept practically full, though not overcrowded throughout the year. This is in spite of the fact that, in proportion to the population the amount of Scarlet Fever is the lowest on record.

During the year only twelve deaths occurred in the Hospital, giving a case mortality of 3.67 per cent. in Scarlet Fever, and 4.3 per cent. in Typhoid Fever. The corresponding rates outside the Hospital were 1.8 per cent. for Scarlet Fever, and 27.5 per cent. for Typhoid Fever.

The six cases, classified as “other diseases,” were cases sent in as “typhoid fever,” but which proved afterwards not to be so. They comprised one case of Influenza, one of Pleurisy, two of Pneumonia, one of Malaria, and one of Meningitis. The last mentioned died. In two of the fatal cases of Scarlet Fever death was really due to a different cause, in one to severe burns, death taking place 12 hours after admission, and one to old standing heart disease.

The following complications and secondary affections occurred amongst the Scarlet Fever cases :—Nephritis, 5 cases ; Adenitis, 8 ; Otorrhœa, 22 ; Rhinorrhœa, 6 ; Eczema, 4 ; Abscess, 4 ; Rheumatism, 4 ; Jaundice, 2 ; Erysipelas, Meningitis, Laryngitis, 1 each.

The following Table shows the number of patients admitted to and discharged from Denes Hospital during 1903 :—

Disease.	Remaining in on Dec. 31st, 1902,	Admitted during 1903	Total Number Treated.	Discharged.	Died.	Remaining in on Dec. 31st, 1903.	Mortality per cent. of total number Discharged and Died.	Daily Average of Patients in Hospital.
Scarlet Fever . .	38	277	315	262	10	43	3.67	34.4
Enteric Fever .	..	23	23	20	1	2	4.3	} 2.3
Other Diseases	..	6	..	5	1	..	16.6	
Totals	38	306	344	287	12	45	4.01	36.7

DEATHS.—The duration of stay in fatal Scarlet Fever cases was as follows :—1 patient was only in Hospital 12 hours (death being primarily due to burns sustained before admission) ; 1 six days ; 1 seven days ; 2 nine days ; 1 seventeen days ; 1 twenty-one days ; 1 twenty-four days ; 1 twenty-nine days ; and 1 thirty days.

Enteric Fever fatal cases :—7 days and 12 days in Hospital respectively.

The following cases were received from other Authorities according to agreement, a payment of 3/6 per day being made for them by such Authorities.

	Typhoid Fever.	Scarlet Fever.	Totals.
Tyne Port Sanitary Authority	2	..	2
Parish Cases.....	..	7	7
Tynemouth Corporation .....	..	7	7
Totals	2	14	16

DENES HOSPITAL.—The Hospital was first opened for the reception of Patients in May, 1883, and the number of cases admitted year by year, since that date, is as follows:—

Disease.	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	Aver- ages
Smallpox	12	22	5	3	3	2	..	..	..	8	6	..	..	..	..	..	..	..	..	..	..	3
Scarlet Fever .	23	8	100	120	212	60	23	43	118	134	164	199	126	195	259	266	284	282	486	409	277	180
Enteric Fever	7	16	9	11	9	6	15	35	17	8	42	26	66	65	47	107	114	44	66	35	29	37
Diphtheria . . .	..	..	2	..	1	1	2	3	1	1	..	..	..	..	..	..	1	1	..	..	..	.6
Typhus Fever.	3	16	3	..	..	2	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	1
Other Diseases	6	4	7	3	19	2	4	7	3	3	2	2	2	1	1	2	..	1	4	..	..	3.5
Totals . . .	51	66	126	137	244	73	44	89	139	156	214	227	194	261	307	375	399	328	556	444	306	225

No steps have so far been taken in the direction of providing a new hospital, and I would respectfully urge the necessity of early action. When the present Hospital was opened the population was just half what it is to-day, and the town is growing at the rate of about 2,000 a year. We are entirely without accommodation for the isolation of Diphtheria. Our accommodation for other diseases is quite inadequate, and otherwise, owing to the absence of modern improvements we are greatly handicapped.

WHITELEAS SMALLPOX HOSPITAL.—All the notified cases of Smallpox, viz., 35, and also 2 from outside districts were admitted to the Hospital, which was kept open practically continuously during the first nine months of the year. Thirteen persons were brought to the Hospital on account of suspicious symptoms, and kept under observation in the isolation wards; 7 of these afterwards developed the disease, and are included in the 35. In addition, 101 persons were brought out to the Hospital for disinfection, and were lodged for one or two nights in the old building. 144 persons, therefore, passed through the institution during the year.

The following shows the number of cases treated in the Whiteleas Hospital since the opening in 1892 :—

Disease.	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903
Smallpox	28	51	14	22	12	3	9	3	2	0	71	37*

* One case belonged to Hebburn, and one to Harton Workhouse.

BACTERIOLOGICAL LABORATORY.—The following circular letter was issued early in the year, and in response a large number, between 200 and 300, specimens have been examined :—

Health Office,
South Shields,
7th February, 1903.

Dear Sir,

BACTERIOLOGICAL EXAMINATIONS.

I desire to inform you that a small Bacteriological Laboratory has been fitted up at the Health Office, and that I shall be pleased to examine and report upon material from suspected cases of Diphtheria and Typhoid Fever.

I shall be obliged if, when notifying such cases, you will mark on the certificate whether you are willing for such examination to be made.

I shall also be pleased to make an examination of a suspected case if it is brought to my notice. In no case will an examination be made unless the Medical Attendant desires it.

The material, a swab from the throat in Diphtheria cases, and a little blood in Typhoid cases, may be sent to the Health Office, or arrangements may be made for me to visit the case to obtain the material.

I am, Sir,

Yours faithfully,

JOHN J. BOYD,

Medical Officer of Health.

STATISTICAL TABLES.

Enteric or Typhoid Fever .....	..	2	2	3	1	2	..	..	..	10	..	94.90
Simple Continued and Ill-defined Fevers .....	..	..	..	..	..	..	..	..	..	..	..	..
Chickenpox	1	..	..	..	..	..	..	..	..	1	..	9.49
Influenza	1	..	1	2	1	2	3	6	1	17	1	161.33
2.— <i>Diarrhœal Diseases.</i>												
Simple Cholera	35	..	..	..	..	..	..	..	..	50	..	474.50
Diarrhœa, Dysentery .....	..	14	1	..	..	..	..	..	..	..	..	..
3.— <i>Malarial Diseases.</i>												
Remittent Fever .....	..	..	..	..	..	..	..	..	..	..	..	..
Ague .....	..	..	..	..	..	..	..	..	..	..	..	..
4.— <i>Zoogenous Diseases.</i>												
Cow-pox, Effects of Vaccination .....	..	..	..	..	..	..	..	..	..	..	..	..
Hydrophobia .....	..	..	..	..	..	..	..	..	..	..	..	..
Glanders .....	..	..	..	..	..	..	..	..	..	..	..	..
Splenic Fever .....	..	..	..	..	..	..	..	..	..	..	..	..
5.— <i>Veneral Diseases.</i>												
Syphilis	5	2	..	..	..	..	..	..	..	7	..	66.43
Gonorrhœa, Stricture of Urethra .....	..	..	..	..	1	..	..	..	..	1	..	9.49
6.— <i>Septic Diseases.</i>												
Erysipelas	3	..	..	..	1	..	..	1	..	4	..	37.96
Pyæmia, Septicæmia .....	..	..	..	..	1	..	..	1	..	3	..	28.47
Puerperal Fever .....	..	..	1	1	..	..	..	..	..	2	..	18.98
II.— <i>PARASITIC DISEASES.</i>												
Thrush .....	..	..	..	..	..	..	..	..	..	..	..	..
Hydatids .....	..	..	..	..	..	..	..	..	..	..	..	..
Other Animal Parasitical Diseases .....	..	..	..	..	..	..	..	..	..	..	..	..
III.— <i>DRETIC DISEASES.</i>												
Starvation, Want of Breast Milk	6	..	..	..	..	..	..	..	..	6	..	56.94
Scurvy .....	..	..	..	..	..	..	..	..	..	..	..	..
Chronic Alcoholism, Delirium Tremens .....	..	..	..	1	1	4	3	2	..	11	3	104.39
Malnutrition	8	1	..	..	..	..	..	..	..	9	..	85.41
IV.— <i>CONSTITUTIONAL DISEASES.</i>												
Rheumatic Fever and Rheumatism of the Heart .....	..	..	..	..	..	2	..	..	..	2	..	18.98
Rheumatism .....	..	..	..	..	..	1	..	1	..	2	..	18.98
Gout .....	..	..	..	..	..	..	..	..	..	..	..	..
Rickets	1	6	..	..	..	..	..	..	..	7	..	66.43
Cancer, Malignant Diseases .....	..	..	..	2	10	19	19	22	1	73	9	692.77

TABLE 1—(Continued).

CAUSES OF DEATH.	AGES.											Total.	55 to 60	Rate per 1,000,000 of Population.
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards.			
Tabes Mesenterica	4	9	..	..	..	..	..	..	..	..	..	13	123.37
Tubercular Meningitis, Hydrocephalus	9	15	8	..	..	..	..	..	..	..	..	32	303.68
Phthisis	4	12	13	33	40	38	23	10	3	..	..	176	1670.24
Other Tubercular and Scrofulous Disease .....	..	10	8	5	3	3	..	1	..	..	..	30	284.70
Purpura, Hæmorrhagic Diathesis	1	..	..	..	..	..	..	..	..	..	..	1	9.49
Anæmia, Chlorosis, Leucocythœmia .....	..	1	..	2	1	1	..	..	..	..	..	5	47.45
Glycosuria, Diabetes Mellitus .....	..	..	2	2	..	..	1	1	1	..	..	7	66.43
Other Constitutional Diseases .....	..	..	..	..	..	..	..	..	..	..	..	..	..
V.—DEVELOPMENTAL DISEASES.														
Premature Birth	56	..	..	..	..	..	..	..	..	..	..	56	531.44
Atelectasis	4	..	..	..	..	..	..	..	..	..	..	4	37.96
Congenital Malformations	11	..	..	..	..	..	..	..	..	..	..	11	104.39
Old Age .....	..	..	..	..	..	..	..	4	22	40	11	77	730.73
VI.—LOCAL DISEASES.														
1.— <i>Diseases of Nervous System.</i>														
Inflammation of Brain or Membranes	7	13	12	2	2	4	..	2	..	..	..	42	398.58
Apoplexy .....	..	2	1	..	1	2	6	23	15	6	5	61	578.89
Softening of Brain .....	..	..	..	..	..	..	2	1	5	..	..	8	75.92
Hemiplegia .....	..	..	..	..	..	..	1	1	7	4	..	13	123.37
Brain Paralysis .....	..	..	..	1	..	..	..	2	1	..	..	4	37.96
Insanity, General Paralysis of the Insane .....	..	..	..	1	1	3	2	1	..	..	..	7	66.43
Epilepsy .....	..	..	..	..	..	2	1	1	..	..	..	5	47.45
Convulsions	69	17	1	1	..	..	..	..	..	..	..	88	835.12
Laryngismus Stridulus	2	..	..	..	..	..	..	..	..	..	..	2	18.98
Paralysis Agitans .....	..	..	..	..	..	..	1	..	..	..	..	1	9.49
Paraplegia .....	..	..	..	..	..	1	..	..	..	..	..	1	9.49
Diseases of Spinal Cord .....	..	..	1	1	2	2	2	2	1	..	..	11	104.39
Other Diseases of Nervous System .....	..	..	1	1	2	2	1	2	1	2	..	12	113.88

2.— <i>Diseases of Organs of Special Sense.</i>												
Ear, Diseases of .....	..	2	..	..	..	..	..	1	..	..	3	..
Eyes " .....	..	..	..	..	..	..	..	..	..	..	..	..
Nose " .....	..	..	..	..	..	..	..	..	..	..	..	..
3.— <i>Diseases of Circulatory System.</i>												
Endocarditis .....	..	..	1	1	7	13	16	14	4	..	2	18.98
Valvular Diseases of Heart ..	..	1	4	4	..	..	..	..	..	4	63	597.87
Pericarditis ..	..	1	..	..	8	13	22	21	6	..	1	9.49
Other Diseases of Heart	1	3	4	3	2	2	..	..	..	12	83	787.67
Aneurism .....	..	..	..	..	1	2	..	1	2	..	4	37.96
Embolism. Thrombosis .....	..	..	..	..	1	..	3	1	..	..	10	94.90
Other Diseases of Blood Vessels ..	..	..	..	..	1	..	..	2	..	1	4	37.96
4.— <i>Diseases of Respiratory System.</i>												
Croup*	2	..	..	..	..	..	..	..	..	..	2	18.98
Laryngitis	2	..	..	..	1	..	1	..	..	..	6	56.94
Bronchitis	57	33	2	1	6	6	20	36	12	1	174	1651.26
Pneumonia	13	9	1	5	12	14	11	8	2	..	78	740.22
Broncho-Pneumonia	17	18	2	1	..	2	4	6	6	1	58	550.42
Pleuro-Pneumonia	1	..	..	1	..	1	2	..	..	..	4	37.96
Pleurisy .....	..	..	..	1	..	1	1	..	2	..	5	47.45
Emphysema .....	..	..	..	..	..	..	..	..	..	..	..	..
Asthma .....	..	..	..	..	..	..	1	..	1	..	2	18.98
Other Diseases of Respiratory System ..	..	1	..	..	1	..	2	2	..	..	6	56.94
5.— <i>Diseases of Digestive System.</i>												
Dentition	15	12	..	..	..	..	..	..	..	..	27	256.23
Sore Throat, Quinsy .....	..	..	..	..	..	..	..	..	..	..	..	..
Diseases of Stomach	9	5	2	3	1	..	..	1	..	..	21	199.29
Enteritis	18	6	1	1	..	1	1	..	..	..	28	265.72
Peritonitis .....	..	2	2	1	1	1	1	..	..	..	4	37.96
Obstructive Diseases of Intestine ..	5	2	..	3	1	4	4	5	1	1	26	246.74
Ascites .....	..	..	..	..	..	..	..	..	..	..	..	..
Cirrhosis of Liver. ....	..	..	..	..	1	3	7	2	..	..	18	170.82
Jaundice and other Diseases of Liver ..	2	..	..	..	..	..	..	..	..	..	2	18.98
Other Diseases of Digestive System. ....	..	1	2	1	..	..	..	..	..	..	4	37.96
6.— <i>Diseases of Lymphatic System.</i>												
Lymphatics and of Spleen .....	..	..	..	..	..	..	..	..	..	..	..	..

* *Membranous Group.*

TABLE II.—SHOWING CAUSES OF, AND AGES AT, DEATH DURING YEAR 1903, IN OR BELONGING TO SOUTH SHIELDS; ALSO DISTRIBUTION OF DEATHS IN THE DIFFERENT WARDS.

Cause of Death.	Deaths in or belonging to the different Wards (at all ages).										Public Institutions in the District.									
	NOTE.—Cols. 2 to 8 and 9 to 19 are NET DEATHS, i.e.— Exclude Non-Residents who died in Public Institutions Within the District. Include Residents who died in Institutions beyond the District.										Residence unknown.	Non-Residents Included in col. 2, cols. 2, 19, 20.								
	All Ages.	0 to 10	1 to 5	5 to 15	15 to 25	25 to 65	65 and over.	Shields.	St. Hilda.	Holborn.	Beacon.	Bents.	Westoe.	Laygate.	Reken- dyke.	Deans.	Tyne Dock.	(19)	(20)	(21)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Smallpox	1	2	13	1	1	1	1	1	1	1	1	1	1	1	1	5	5	1	1	1
Measles	15	1	9	1	1	1	1	1	1	1	1	2	5	1	1	1	1	1	1	1
Scarlet Fever	12	1	1	1	1	1	1	1	1	1	1	2	5	1	1	1	1	1	1	1
Whooping Cough	3	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1
Diphtheria & Membranous Croup	16	1	10	6	1	1	1	1	1	1	2	2	3	1	2	3	2	1	1	1
Croup	10	1	1	1	1	1	1	1	1	1	1	2	3	1	1	1	1	1	1	1
Typhus	10	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1
Enteric	10	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1
Other Continued	17	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1
Epidemic Influenza	17	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1
Cholera	17	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1
Plague	50	35	14	1	1	1	1	1	1	1	1	3	9	8	2	8	7	1	1	1
Diarrhoea	28	18	6	1	1	1	1	1	1	1	2	2	1	4	2	5	5	2	2	1
Enteritis	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Puerperal Fever	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Erysipelas	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Other Septic Diseases	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Phthisis	176	4	12	13	33	111	3	27	9	14	21	19	18	12	19	21	15	1	30	1
Other Tubercular Diseases	75	13	34	16	5	7	23	13	5	6	7	4	8	6	8	11	7	1	1	1
Cancer, malignant disease	73	73	33	16	5	50	23	6	7	6	12	5	6	6	6	11	8	1	1	1
Bronchitis	174	57	33	1	2	33	49	11	8	22	11	14	16	25	27	20	20	2	8	1
Pneumonia	78	13	9	1	1	40	10	8	7	11	5	9	3	10	9	4	8	2	18	1
Pleurisy	5	20	20	3	1	2	2	11	3	1	10	6	9	7	6	5	11	2	13	1
Other Respiratory Diseases	76	20	20	3	1	16	16	4	2	2	5	6	3	1	3	2	1	1	1	1
Alcoholism, Cirrhosis of Liver	29	5	2	1	1	25	4	1	1	3	4	4	1	2	3	2	1	1	1	1
Veneral Diseases	8	56	1	1	1	1	1	1	1	2	2	4	8	2	9	9	9	1	1	1
Premature Birth	56	56	1	1	1	1	1	2	2	1	1	4	1	2	1	1	1	1	1	1
Diseases and Acc. of Parturition	149	149	1	5	9	87	47	15	11	12	16	16	20	14	13	12	16	4	11	3
Heart Diseases	47	8	11	5	4	16	3	8	5	3	1	2	4	1	4	8	9	2	1	15
Accidents	9	2	1	1	1	2	1	3	1	1	1	1	1	1	1	1	1	1	1	1
Suicides	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Homicides	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Chickenpox	671	242	62	34	17	162	154	60	46	58	61	71	76	86	59	79	72	3	61	4
All other Causes	1805	479	239	89	89	588	321	179	122	159	164	173	201	195	181	212	204	15	165	29
All Causes	105325	...	...	...	...	...	...	9162	5379	6783	10480	11110	13730	9842	11728	14158	12953	...	...	...
Populations	17.1	...	...	...	...	...	...	19.5	22.8	23.4	15.6	15.5	14.6	19.8	15.4	14.9	15.7	...	...	...
Death Rate per 1,000	17.1	...	...	...	...	...	...	19.5	22.8	23.4	15.6	15.5	14.6	19.8	15.4	14.9	15.7	...	...	...

TABLE III.—DEATHS DURING THE YEAR 1903 IN THE URBAN SANITARY DISTRICT OF SOUTH SHIELDS—INCLUDING THOSE OF THE BOROUGH DYING IN HARTON WORKHOUSE AND SEDGEFIELD ASYLUM, AND EXCLUDING PERSONS WHO DIED IN THE TOWN BUT DID NOT BELONG THERETO—CLASSIFIED ACCORDING TO AGES, DISEASES, AND THE MONTHS IN WHICH THEY OCCURRED.

AGES AT DEATH.						MONTH.	FATAL DISEASES.																			
Under 1 year.	1 & under 5 years.	5 & under 15 years.	15 & under 25 years.	25 & under 65 years.	65 and upwards,		Smallpox.	Measles.	Scarlet Fever.	Diphtheria.	Membr. Croup.	Whooping Cough.	Continued Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia and Septicæmia.	Ague.	Phthisis.	Bronchitis, Pneumonia & Pleurisy.	Injuries.	Heart Disease.	Puerperal Fever.	All other Diseases.
479	239	89	89	588	321	1805	TOTALS....	1	15	12	14	2	3	10	..	50	2	4	3	..	176	257	58	149	2	1047
56	24	2	5	60	35	182	January	4	2	..	1	1	..	3	1	1	1	19	31	5	10	..	104
53	17	9	9	52	24	164	February ..	..	1	..	..	..	3	..	3	..	..	..	..	13	22	6	11	..	104
38	22	13	10	37	42	162	March	4	1	3	24	24	4	15	1	97
34	22	5	10	50	36	157	April	2	..	..	..	..	1	..	1	..	..	..	..	21	27	2	11	1	91
40	15	8	6	55	27	151	May .....	..	..	..	1	1	1	..	1	..	..	..	..	16	21	7	12	..	91
30	17	12	7	57	15	138	June .....	..	1	1	..	..	1	..	..	..	..	..	..	13	12	10	12	..	87
31	21	7	10	45	19	133	July .....	..	1	1	..	..	..	..	1	..	..	..	..	17	16	3	14	..	74
39	18	7	5	41	31	141	August	1	..	3	..	..	..	..	6	..	..	..	..	11	18	3	9	..	88
50	13	7	5	48	17	140	September ..	..	2	1	..	..	..	..	16	..	1	..	..	15	13	4	7	..	80
47	30	8	7	47	17	156	October.....	..	..	2	..	..	..	..	15	1	..	..	..	20	23	5	13	..	76
31	27	8	8	42	27	143	November...	..	..	1	..	..	..	..	1	..	2	..	..	10	21	4	19	..	83
30	13	3	7	54	31	138	December ..	..	..	..	1	..	..	..	..	..	..	1	..	12	29	5	16	..	72

TABLE IV.—VITAL STATISTICS OF SOUTH SHIELDS
DURING 1903 AND PREVIOUS YEARS.

Year.	Population estimated to Middle of each year.	Births.		Total Deaths occurring in the Borough.				Deaths in Public Institu- tions in the Borough.	Deaths of Non-residents registered in the Borough.	Deaths of Residents registered in Public Institu- tions beyond the Borough. §	Net Deaths at all Ages belonging to the Borough.	
		Number.	Rate.*	Under 1 Year of Age.		At all Ages.					Number.	Rate.*
				Number.	Rate per 1,000 Births registered.	Number.	Rate.*					
1	2	3	4	5	6	7	8	9	10	11	12	13
1893	82,284	2,916	35.4	527	180	1,752	21.2	38	12	112	1,846	22.4
1894	84,077	3,018	35.9	418	138	1,369	16.2	39	11	101	1,459	17.3
1895	85,910	3,018	35.1	566	187	1,749	20.3	31	13	96	1,832	21.2
1896	87,784	3,140	35.7	521	165	1,526	17.3	33	4	102	1,624	18.5
1897	89,699	3,227	35.9	499	154	1,477	16.4	39	6	81	1,552	17.2
1898	91,656	3,395	37.0	618	182	1,842	20.0	60	11	146	1,977	21.5
1899	93,657	3,371	36.0	593	175	1,829	19.5	75	20	108	1,917	20.7
1900	95,703	3,482	36.3	560	160	1,917	20.0	83	23	160	2,054	21.4
1901	97,800	3,607	36.8	613	169	1,865	19.0	90	8	163	2,020	20.6
1902	103,330	3,759	36.4	563	149	1,862	18.0	90	16	165	2,011	19.4
Averages for years 1893-1902.		3,293	36.0	547	166	1,718	18.8	58	12	123	1,829	20.0
1903	105,325	3,635	34.5	479	132	1,669	15.8	74	29	165	1,805	17.1

* Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population.

§ Includes Whiteleas Hospital, Harton Workhouse, Sedgefield Asylum, and Durham Gaol.

NOTE.—The deaths included in Column 7 of this Table are the whole of those registered during the year as having actually occurred within the Borough. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term “Residents” is meant persons who have been taken out of the Borough on account of sickness or infirmity, and have died in public institutions elsewhere.

The “Public Institutions” taken into account for the purposes of this Table are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums.

TABLE V.—BIRTH-RATES AND DEATH-RATES, SOUTH SHIELDS, 1871-1903 (PER 1,000 OF THE POPULATION).

YEAR.	Population.	Deaths under 1 year per 1,000 Births.	Gross Death-rate.	Zymotic Death-rate.	Smallpox.	Measles.	Scarlet Fever.	* Diphtheria.	Whooping Cough.	" Fever."	Diarrhea.	Erysipelas, Puerperal Fev.	Phtisis.	Tuberc. Mesenterica.	Other Tuberc. & Scrofulous Diseases.	Cancer.	Circulatory System.	Dis. of the Nervous System.	Dis. of the Respiratory System.	Dis. of the Urinary System.	Dis. of the Reproductive System.	Violence.	Birth-rate.
Mean 1871-80.....	.....	164	25.5	6.0	1,858	.42	1.44	.12	.78	.79	1.59	.25	1.91	...	...	...	1.23	...	...	...	...	.84	43.1
Mean 1881-90.....	.....	140	20.5	2.3	.012	.34	.45	.10	.44	.19	.78	.12	1.84	...	...	...	1.64	...	...	...	...	.59	38.8
1891	78,920	176	22.1	2.85	.000	.90	.11	.29	.60	.20	.73	.14	1.54	.20	.69	.39	1.59	2.96	4.32	.31	.16	1.01	37.4
1892	80,530	143	19.4	1.66	.000	.29	.12	.09	.33	.21	.55	.18	1.51	.36	1.16	.60	1.82	2.67	3.41	.43	.07	.67	37.0
1893	82,284	180	22.4	3.18	.036	.38	.38	.02	.36	.27	1.56	.09	1.99	.42	.86	.48	1.93	2.79	2.95	.39	.15	.81	35.4
1894	84,077	138	17.3	1.36	.000	.19	.33	.04	.17	.20	.42	.06	1.41	.08	.74	.71	1.72	2.23	3.14	.46	.10	.77	35.9
1895	85,910	137	21.2	3.36	.000	.29	.18	.08	.90	.34	1.42	.05	1.55	.29	.80	.62	1.60	3.02	5.04	.31	.16	.66	35.1
Mean 1891-95.....	.....	165	20.5	2.48	.007	.41	.23	.10	.47	.26	.94	.10	1.62	.27	.85	.56	1.73	2.77	3.77	.38	.13	.78	36.1
1896	87,734	165	18.5	2.49	.000	.92	.18	.04	.42	.28	.68	.01	1.61	.21	.90	.61	2.01	2.59	3.14	.28	.11	.53	35.7
1897	89,699	184	17.2	1.83	.000	.28	.15	.06	.25	.16	.88	.07	1.40	.15	.77	.59	1.41	3.33	2.66	.27	.12	.62	35.9
1898	91,656	182	21.5	3.09	.000	.56	.25	.00	.77	.39	1.11	.11	1.58	.19	.69	.64	1.79	2.83	3.84	.31	.14	.80	37.0
1899	93,657	175	20.7	2.33	.000	.04	.21	.02	.12	.47	1.41	.03	1.57	.24	.44	.59	1.43	2.65	3.98	.57	.17	.93	36.0
1900	95,703	160	21.4	2.33	.006	.55	.21	.09	.67	.19	.55	.12	1.83	.19	.60	.73	1.96	2.34	3.67	.48	.11	1.07	36.3
Mean 1896-1900.....	.....	167	19.8	2.41	.000	.47	.20	.04	.44	.30	.90	.03	1.59	.20	.68	.71	1.72	2.75	3.46	.38	.13	.78	36.2
Mean 1891-1900.....	.....	166	20.1	2.44	.003	.44	.21	.07	.45	.28	.92	.09	1.60	.23	.76	.63	1.72	2.76	3.61	.38	.13	.78	36.1
Mean 1871-1900.....	.....	157	22.0	3.60	.291	.40	.70	.10	.56	.42	1.10	.15	1.78	...	...	...	1.53	...	...	...	...	.74	39.3
1901	97,800	169	20.6	3.36	.000	.68	.60	.14	1.0	.22	1.60	.09	1.63	.31	.40	.68	1.65	2.83	3.15	.51	.10	.69	36.8
1902	103,330	149	19.4	2.62	.039	.92	.38	.03	1.01	.06	.16	.14	1.80	.04	.60	.63	1.79	2.83	3.15	.37	.21	.73	36.4
1903	105,325	132	17.1	1.01	.009	.14	.11	.15	.03	.09	.47	.08	1.67	.12	.59	.69	1.59	2.45	3.16	.45	.21	.55	34.5

* Includes Membranous Group.

TABLE VI.—DEATH-RATES IN THE WARDS FROM VARIOUS DISEASES DURING 1903,
PER 1,000 OF THE POPULATION.

WARD.	POPULATION.	TOTAL DEATH RATE.	TOTAL ZYMOTIC.	SCARLET FEVER.	MEASLES.	WHOOPI- NG COUGH.	ALL TUBERCU- LAR DISEASES.	ZYMOTIC DIARRHŒA.
Westoe	13,730	14.6	1.38	.36	.07	.07	1.89	.65
Deans	14,158	14.9	1.27	.07	.35	.00	2.26	.56
Rekendyke ...	11,728	15.4	.68	.08	.08	.00	2.3	.17
Bents	11,110	15.5	.81	.18	.00	.00	2.07	.27
Beacon	10,480	15.6	.57	.09	.09	.09	2.67	.00
Tyne Dock ...	12,953	15.7	1.31	.07	.38	.07	1.74	.54
Shields	9,162	19.5	.21	.00	.10	.00	4.36	.11
Laygate	9,842	19.8	1.11	.00	.10	.00	1.82	.81
Hilda	5,379	22.8	2.00	.18	.00	.00	2.6	1.30
Holborn	6,783	23.4	.88	.00	.00	.00	2.94	.74
BOROUGH	105,325	17.1	1.01	.11	.14	.03	2.38	.47

TABLE VII.—CASES OF INFECTIOUS DISEASE NOTIFIED AND REMOVED TO HOSPITAL IN SOUTH SHIELDS DURING THE YEAR 1903, CLASSIFIED ACCORDING TO WARD AND AGE.

Notifiable Disease.	Cases Notified in whole Borough.						Total Cases Notified in each Ward.										No. of such Cases Removed to Hospital from each Ward.											
	At all Ages.						At following Ages—Years.						Total Cases Notified in each Ward.								No. of such Cases Removed to Hospital from each Ward.							
							Under 1.																					
		1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.		Shields.	St. Hilda.	Holborn.	Beacon.	Bents.	Westoe.	Laygate.	Reken dyke.	H Deans.	Tyne Dock.	Shields.	St. Hilda.	Holborn.	Beacon.	Bents.	Westoe.	Laygate.	Reken dyke.	H Deans.	Tyne Dock.	
Smallpox	35	3	11	8	13	..	18	1	..	8	4	4	18	1	..	8	4	4	..		
Cholera	78	1	19	46	5	7	..	4	1	22	6	19	2	5	13	6		
Diphtheria.....	5	4	1	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Membranous Croup	110	6	4	6	14	70	10	4	8	8	7	16	11	16	18	9	..	..	..	..	..	..	..	..	..
Erysipelas	378	4	130	202	21	21	21	20	17	51	41	76	26	33	49	44	19	19	16	24	22	46	23	31	31			
Scarlet Fever.....	58	..	3	17	22	16	7	2	2	1	7	8	9	8	7	7	4	..	2	..	1	3	5	2	5			
Typhus Fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever .....	..	..	..	..	..	..	..	1	..	..	..	..	2	1	2	..	..	..	..	..	..	..	..	..	..
Relapsing Fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	6	..	..	2	4	..	..	1	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..
Plague .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chickenpox	619	?	?	?	?	?	42	24	23	103	113	83	42	68	93	28	..	..	..	..	..	..	..	..	..
Totals.....	1289	11	163	283	72	131	101	58	51	193	179	204	92	135	182	94	41	20	18	32	27	49	28	37	36			

ISOLATION HOSPITALS { Denes Fever Hospital, situate in Deans Ward.
Whiteleas Smallpox Hospital, situated a mile South of the Borough Boundary.

TABLE VIII.—COMPARATIVE RATES OF PREVALENCE OF SICKNESS AND DEATH FROM
INFECTIOUS (NOTIFIABLE) DISEASES.

(Rates calculated per 1,000 of the population, estimated to the middle of each Year).

Year.	Smallpox.		Cholera.		Erysipelas.		Diphtheria and Membranous Croup.		Scarlet Fever.		Typhus Fever.		Enteric Fever.		Continued and Relapsing Fevers.		Puerperal Fever.		Plague.	
	Attack	Death.	Attack	Death.	Attack	Death.	Attack	Death.	Attack	Death.	Attack	Death.	Attack	Death.	Attack	Death.	Attack	Death.	Attack	Death.
1893	.54	.036	.02	.02	1.36	.05	.71	.02	7.4	.38	..	..	2.06	.33	.16	.01	.12	.01	..	..
1894	.16	.000	..	..	1.43	.02	.54	.04	8.4	.39	..	..	.90	.20	.08	..	.08	.02	..	..
1895	.25	.000	..	..	.90	.03	.40	.08	4.4	.18	..	..	1.77	.34	.29	..	.04	.01	..	..
1896	.13	.000	..	..	1.25	.01	.44	.04	5.4	.18	..	..	1.43	.26	.24	.01	.04	..	..	..
1897	.03	.000	..	..	1.16	.04	.42	.06	7.1	.15	..	..	.86	.15	.15	.01	.03	..	..	..
1898	.06	.000	..	..	1.44	.02	.18	.00	6.9	.25	..	..	1.80	.39	.08	..	.08	.06	..	..
1899	.02	.000	..	..	.92	.03	.35	.02	7.1	.21	..	..	1.90	.47	.02	..	.04	.02	..	..
1900	.02	.000	..	..	.83	.05	.30	.09	5.3	.21	..	..	.74	.20	.06	..	.04	.02	..	..
1901	..	.000	..	..	.80	.03	.36	.14	12.5	.60	..	..	1.17	.22	.02	..	.05	.01	..	..
1902	.68	.039	..	..	.95	.03	.26	.06	8.0	.38	..	..	.64	.03	..	..	.07	.03	..	..
Av'ge	.19	.007	.002	.002	1.10	.03	.40	.05	7.2	.29	..	..	1.33	.26	.11	.003	.07	.02	..	..
1903	.33	.009	..	..	1.04	.03	.79	.15	3.59	.11	..	..	.55	.09	..	..	.06	.02	..	..

TABLE IX.—RESULT OF METEOROLOGICAL OBSERVATIONS, 1903, TAKEN AT 9 A.M. DAILY, AT THE NORTH MARINE PARK, SOUTH SHIELDS; ABOUT 20 FEET ABOVE SEA LEVEL.

MONTH.	Mean Humidity.	Mean Temperature.	Highest Temperature Registered.	Lowest Temperature Registered.	Total Rainfall (in inches).	Greatest fall in any twenty-four hours.	Number of Days on which rain fell (.01 ins. or more).	Anemometer— Mean Daily Mileage.	Barometer.	1 foot Earth Thermometer.	4 feet Earth Thermometer.	DIRECTION OF WIND— NUMBER OF DAYS.
January	86.5	39.3	55.5	23.0	2.41	.46	18	351	29.811	37.1	44.4	SW, 19; S, 7; W, 4; N, 1
February . . .	79.5	44.7	58.5	33.0	.88	.21	13	419	29.858	41.9	45.0	SW, 12; S, 8; W, 7; N, 1
March	77.1	44.8	61.0	30.0	1.03	.22	15	356	29.607	41.1	44.7	SW, 13; S, 12; W, 3; N, 2; NE, 1
April	76.3	43.3	59.0	28.0	1.49	.46	20	352	29.827	43.0	46.0	W, 9; N, 8; E, 4; NE, 3; SE, 2; S, 2; SW, 2
May	79.1	49.7	75.0	34.0	1.97	.27	16	318	29.876	49.9	48.2	N, 8; NE, 7; S, 7; SW, 4; E, 3; SE, 2
June	76.2	54.8	75.0	39.5	2.45	.73	11	339	30.090	56.6	52.7	N, 10; S, 7; NE, 5; E, 4; W, 3; SW, 1
July	76.7	58.6	80.5	42.0	4.83	1.29	17	270	29.849	59.0	55.3	N, 9; S, 8; W, 6; NW, 5; E, 2; SW, 1
August	76.4	58.3	73.0	43.0	1.72	.32	21	302	29.709	56.8	55.6	W, 15; SW, 6; S, 4; NE, 3; N, 2; NW, 1
September . .	82.1	55.0	70.1	38.0	2.55	.48	17	334	29.987	53.1	54.3	S, 11; N, 5; E, 5; W, 4; SW, 3; SE, 1; NW, 1
October . . .	85.4	50.2	65.5	36.0	6.73	2.24	26	378	29.491	48.3	52.8	S, 11; SW, 9; W, 4; N, 3; SE, 2; E, 1; NW, 1
November . .	86.4	43.3	56.0	26.0	1.74	.39	14	331	29.935	41.4	50.1	SW, 15; W, 10; N, 2; S, 2; NW, 1
December . .	89.5	38.4	50.0	26.0	2.83	1.19	19	311	29.710	36.9	46.4	SW, 15; S, 4; SE, 4; E, 3; W, 2; N, 2; NE, 1
TOTALS . . . .	..	..	..	..	30.63	..	207	..	..	..	..	SW, 100; S, 83; W, 67; N, 53; E, 22; NE, 20 SE, 11; NW, 9
AVERAGES . .	80.9	48.4	..	..	2.55	..	17	338	29.812	47.1	49.6	

The highest temperature registered during the year was 80.5 on July 9th, and the lowest 23.0, on January 14th. The greatest rainfall during any 24 hours was 2.24 inches recorded at 9 a.m. on October 9th.



GENERAL SANITARY WORK.

HOUSING OF THE WORKING CLASSES ACT.—PART II.—During the year I reported 34 dwellings to be “unfit for human habitation,” and notices were served on the owners in accordance with this Act.

16 of these dwellings were closed by magistrates’ order ; 6 were put into habitable condition by the owners ; 11 are at present undergoing repair, the summonses being adjourned for that purpose ; whilst in one instance, a case of a dwelling-house situated above a stable, the magistrates made no order. The following list gives particulars of the properties dealt with :—

Situation.	No. of Rooms.	No. of Tenants.	No. of Persons.	M.O.H.’s Representation.	At Court.	Result.
34, North Street	1	1	1	Apl. 21	Nov. 25	Closing Order, converted into a wash-house.
5, Shakespeare Place.....	1	1	1	„	„	Closing Order.
5, Thames Street.....	1	1	1	„	„	Do.
1, Mason’s Lane .....	...	0	0	June 16	Dec. 2	Do.
19, Lower Thames Street and 1-2, Studley Stairs,	5	3	...	July 21	Nov. 25	Do.
3, 4 & 5, Studley Stairs & High Johnson’s Court.	11	5	...	„	...	{ One room pulled down and another converted into a wash-house, remainder made fit. Put into habitable condition.
High Johnson’s Court ...	2	1	...	„	„	No order.
17, Chapter Row.....	3	1	...	„	Dec. 2	No order.
5-6, Wapping Street and 1, Dock Stairs	5	3	...	Aug. 18	„	Closing Order.
2, Dock Stairs	5	3	...	„	„	Adjourned for 3 months to allow owner to put into repair.
36, Wapping Street.....	3	3	...	„	„	Closing Order.
2-3, Harrison’s Court	6	5	...	„	Dec. 18	Do.
118, Wapping Street	6	2	...	Sep. 14	Dec. 2	Do.
92-100, East Holborn	20	...	...	Oct. 13	Dec. 18	Adjourned.
TOTALS	69	29	...			

The closing of these premises has usually been an exceedingly tedious process, and has entailed repeated visits on the part of the Inspectors and Medical Officer. This arises partly from the forms prescribed by the Act, and partly on account of the frequent adjournments of the cases at the Magistrates' Court. During the year an important alteration has been made in the law which deals with this kind of property in the passing of the Housing of the Working Classes Act, 1903. Under this Act it is no longer necessary to serve a preliminary notice on the owner of the property requiring him to put it into repair, but a summons for a closing order is issued at once. It is hoped that this will obviate a great deal of vexatious delay. The houses dealt with under these Acts are only those that "cannot reasonably be made fit for habitation," and, therefore, delay in closing them is useless. In cases where the property, though insanitary, can be made fit I advise proceedings under the Public Health Act.

So far our work under these Acts has been altogether destructive, and nothing has been done in the direction of providing houses by the Corporation. Whilst, no doubt, this work is in the main best left to private effort, and this has successfully met the requirements of the great bulk of the community, there appears to me to be a distinct dearth of decent accommodation for the very poor, those who can afford only half-a-crown or less per week. The provision of such accommodation is, in my opinion, far more called for than that of a Municipal Lodging House. The hygienic condition of some of the present lodging houses is very much better than is found in the private houses of persons of similar class in the Borough; and, moreover, these are for adults only, with very rare exceptions; whereas, in the private houses, tenanted by the poorest class, there are usually children. The provision of good hygienic surroundings for the growing child is certainly of immense importance.

FACTORY AND WORKSHOP ACT, 1901.—There are 197 registered Workshops in the Borough. Over 300 visits of inspection were

made to workshops and work-places during the year by the Sanitary Inspectors, and generally they were found in a fairly sanitary condition. Owing to the smallness of our staff it is impossible to make as frequent visits to these places as is desirable. We are still without definite guidance as to any definite standard of ventilation which we can enforce in these places, and thus our efforts are practically limited to the securing of adequate sanitary accommodation, and the maintenance of cleanliness. Two notifications were received from the Inspector of Factories respecting sanitary conveniences in workshops, and received attention. The sanitary conveniences of one large shipbuilding yard were inspected and found defective. Notice was served and sundry improvements effected.

— The following work has been carried out in workshops during 1903, as the result of notices served by this Department :—

Two pedestal W.C.'s fixed and one privy receptacle so as to provide sufficient accommodation.

One obsolete W.C. abolished and replaced by one of pedestal wash-down type ; also drain re-laid, ventilation provided.

One Bakehouse floor cemented and the W.C. soil pipe renewed.

A pickle works was found dirty, and ordered to be limewashed and cleansed.

SANITATION OF COALMINES.—I would particularly draw attention to the absence of powers for the inspection, by your Medical Officer and Sanitary Staff, of coalmines. As pointed out under the subject of Typhoid Fever (page 25), I have reason to think that this disease is specially liable to be spread in the mines, and it is admitted that the sanitary arrangements there are of the most primitive nature.

The recent appearance in this country of ankylostomiasis, a disease specially liable to attack miners, makes it still more necessary that a higher standard of sanitation should be insisted upon.

I consider that our present powers of inspection of the sanitary arrangements of factories should be extended to coal mines.

FOOD AND DRUGS ACT.—The results of the analyses of samples again show an improvement in the quality. Only 20 per cent. of the milk samples were found defective, as against 25 per cent. last year, whilst all the other articles analysed were found to be genuine. The analyst also reports the samples to be free from preservatives. (See Table on page 69.)

DAIRIES AND MILKSHOPS.—A number of the most unsuitable of these have been closed during the year, and in the licensing of premises for the sale of milk a higher standard of sanitation has been required.

COWSHEDS.—Of the two cowsheds mentioned as unfit in last year's report, one has been put into good condition by putting down cement floors and improving the ventilation and lighting, whilst the other is unoccupied.

In a third case, as mentioned elsewhere in this report, extensive improvements were carried out (consequent on an outbreak of infectious disease), in the shape of paving of yard, erection of manure pit, and modernising of drainage of byres.

SLAUGHTERHOUSES.—During the year good progress has been made with the public slaughter-house question. In the spring of the year a deputation was sent to visit and inspect the public slaughter-houses at Carlisle, Barrow, Blackburn, and Birmingham. This deputation were, with one exception, satisfied by their investigations that the provision of slaughtering accommodation in the large hall system was the best, and reported accordingly. Plans were prepared by the Borough Surveyor and approved by the Town Council for an abattoir on this principle. Later in the year a Local Government Board inquiry was held, and the plans met with the approval of the Board. Detailed plans are now being prepared, and the site is being cleared, so that the erection of the buildings may be proceeded with at an early date.

ICE-CREAM SHOPS.—With the powers given by the Corporation Act of 1903 we shall be able to maintain a higher standard of sanitation and cleanliness in these premises. They are being systematically inspected and registered for this purpose.

FRIED FISH SHOPS.—Mr. Pollock reports that the better ventilation of these premises has been repeatedly urged by him on the proprietors, and also the provision of an improved flue for carrying off the fumes from the pans, and that these improvements are being widely carried out.

BAKEHOUSES.—The Section in the Factory Act, 1901, dealing with underground bakehouses came into force at the end of the year. There were only four bakehouses in the Borough which came under the definition of “underground.” Two of these have been closed and two have met the requirements of the Act. In one of these the ventilation was improved, and in the other the floor was re-laid in concrete, an obsolete wash-up abolished, increased cubic space and better lighting and ventilation provided.

Apart from the underground premises one bakehouse had floors re-laid in cement and walls replastered.

COMMON LODGING-HOUSES.—The following Table shows how these stood at the end of 1903 :—

	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903
Number existing	33	32	*18	17	17	18	21	24	24	22	22	23
Accommodation	900	801	335	370	374	..	..	701	705	968	668	695

* Reduced by Visiting Sub-Committee.

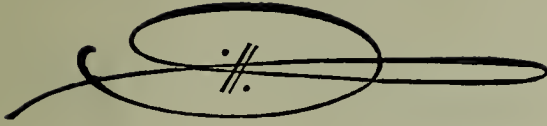
SEAMEN'S BOARDING-HOUSES.—The following Table shows how these stood at the end of 1903 :—

	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903
Number existing	120	..	..	..	..	80	73	71	79	78
Accommodation	775	760	738	862	866

HOUSES LET IN LODGINGS.—There are at present on the register 13 such houses, comprising 80 rooms let at four shillings a week. There is at present no proper arrangement for the systematic inspection of this last class of houses.

MILL DAM.—The work referred to in my last report has now been completed, and we have had no complaints of nuisance from this source during the year.

HOUSE TO HOUSE INSPECTION has been made of the following streets :—Upper and Lower Thames Street, and adjoining Courts, West Harton Village, Brunswick Street, all the St. Hilda Ward lying west of N.E. Railway Line. I personally accompanied Inspector Weir in the inspection of St. Hilda Ward, and was thus able to see how useful this work is in the detection of nuisances and insanitary conditions, and also what a lot of time it occupies.



REPORTS

OF THE

INSPECTORS OF NUISANCES,

AND THE

INSPECTOR OF MEAT, FOOD & DRUGS, &c.,

Being a Summary of their Monthly Reports to the Health

Committee during 1903.

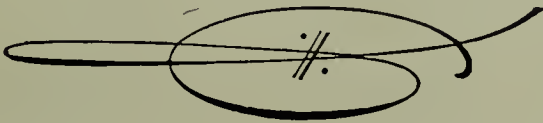


TABLE A.—PRELIMINARY NOTICES ISSUED FOR THE
ABATEMENT OF NUISANCES.

Preliminary Notices for the following :—	J. J. Hindmarch.	W. Clark.	R. W. Weir.	G. R. Lewthwaite.	Totals.
To abolish privy middens and substitute privy receptacles .....	..	12	2	..	14
„ abolish obsolete W.C.s and substitute modern type .....	..	..	12	3	15
„ abolish cesspool .....	..	..	1	..	1
„ re-construct P.H. urinal .....	..	..	2	3	5
„ repair privies and W.C.s	2	1	8	15	26
„ „ privy roof .....	..	..	..	5	5
„ „ dwelling roof .....	..	8	..	37	45
„ „ spouting and down-comers	3	4	..	20	27
„ „ dilapidated outbuildings	1	..	9	21	31
„ „ or re-lay drainage	5	13	67	18	103
„ „ „ yard surfaces, &c.	48	27	53	93	221
„ replace yard gullies .....	..	..	23	10	33
„ „ scullery sinks	4	..	10	..	14
„ „ W.C. basins .....	..	..	5	..	5
„ trap scullery and other wastepipes	14	13	32	7	66
„ provide privy hatches, seats, and doors	22	36	29	36	123
„ „ privy accommodation	1	..	1	..	2
„ „ W.C. „	2	..	21	2	25
„ „ „ „ in workshop ..	1	..	..	..	1
„ „ manure receptacle .....	..	3	2	..	5
„ „ water supply for W.C.s and urinals ..	..	1	6	4	11
„ „ „ domestic purposes ..	1	5	7	5	18
„ „ cellar drain .....	..	..	1	..	1
„ „ floor ventilation	2	..	19	1	22
„ „ yard gullies	3	..	..	..	3
„ cleanse filthy dwellings .....	..	7	36	23	66
„ „ „ privies and outbuildings	2	24	11	12	49
„ „ „ yards	9	7	..	..	16
„ clear choked drains	14	91	136	78	319
„ „ „ W.C.s .....	..	1	24	9	34
„ „ „ spouts	1	..	..	4	5
„ cease keeping animals	28	7	5	16	56
„ „ overcrowding .....	..	1	..	1	2
„ „ occupying a cellar .....	..	..	1	..	1
„ prevent liquid running from privy	11	8	21	9	49
„ „ dampness .....	..	..	99	12	111
„ remove accumulations of refuse	6	1	30	20	57
„ fill up stagnant rain water cistern	1	1	2	2	6
„ „ „ ditch	1	..	..	..	1
Re minor nuisances	12	13	12	42	79
Totals	194	284	687	508	1673
Statutory notices	8	14	26	28	76
Verbal Notices for minor nuisances .....	..	330	..	..	330
Letters issued	6	38	269	100	413
Notices sent to Surveyor's and Scavenging Departments	7	12	31	24	74
Notes issued for lime for limewashing .....	..	..	..	..	478

TABLE B.—STRUCTURAL WORK CARRIED OUT DURING 1903.

	J. J. Hindmarch.	W. Clark.	R. W. Weir.	G. R. Lewthwaite.	Totals.
Obsolete W.C.s replaced by modern type	10	10	8	28
Pedestal W.C.'s fixed	10	13	23
" " in lieu of middens	4	..	..	4
" " in lieu of privy receptacles	2	1	..	3
Defective W.C. basins replaced	5	13	18
Urinals erected or improved	2	3	4	9
Privy receptacles provided in lieu of middens and obsolete W.C.'s	35	9	9	53
Privy receptacles repaired	18	18
New drains provided	1	7	8
Old drains abolished	2	2
Defective drains relaid	13	9	11	33
" " repaired	1	1
" gullies replaced	4	8	12
Intercepting traps fixed	10	16	26
Grease traps provided	4	4
Ventilating shafts erected	10	10	20
Defective soilpipe replaced	4	8	12
Scullery and bath waste pipes trapped	35	31	9	75
Main waste-pipes provided	4	4
" " disconnected from soil pipe	7	..	7
Rainwater downcomers renewed	13	19	32
" spouting renewed	10	13	27	50
" cisterns abolished	2	3	5
Dampness remedied by :—					
Dwelling roofs repaired	22	26	49	97
Staircase roofs repaired	11	..	11
Brickwork pointed	15	..	15
Walls cemented	4	4
Floors ventilated	19	7	26
Cavity wall provided	1	1
Defective yards cemented or repaired	49	41	68	158
" wash-house, cellar, &c., floors cemented	32	8	13	53
Unpaved areas cemented	2	2	4
Underground wash-house closed	1	1
Obstructive buildings removed	9	9
Wood floors relaid	8	13	21
Manure pits provided	2	..	2
Chimneys raised	2	2

TABLE C.—SUMMARY OF VISITS.

Nature of Visit.	J. J. Hindmarch.	W. Clark.	R. W. Weir.	G. R. Lewthwaite.
Complaints of nuisances	*	128	178	160
Drains tested	*	6	11	9
To Seamen's Boarding Houses	168	311	97
„ Common Lodging Houses	260	123
„ Houses let in Lodgings	71
„ Workshops and Workplaces	*	116	95	65
Other visits of Inspection, &c., specified below .	*	3825	2568	*6
Total visits of all descriptions	*	4243	3423	..

* No record or record incomplete.

TABLE D.—EPIDEMIC WORK.

	J. J. Hindmarch.	W. Clark.	R. W. Weir.	G. R. Lewthwaite.
Visits made on notification of Scarlet Fever, Enteric Fever, Smallpox, &c.	288	268	216	437
Supervising home-treated cases	*	*	43	*
Phthisis Deaths	*11	*	36	37
Smallpox Contacts	*	*78	447	*
Cases reported from Schools	8	149	97	73
Totals .....	..	..	839	..

* No record, or record incomplete.

TABLE E.—CASES REMOVED TO HOSPITAL.

Disease.	J. J. Hindmarch.	W. Clark.	R. W. Weir.	G. R. Lewthwaite.	Totals.
Scarlet Fever	58	71	74	76	279
Enteric Fever	5	7	7	2	21
Smallpox .....	..	..	6	28	34
Totals	63	78	87	106	334

TABLE F.—DISINFECTION.

	J. J. Hindmarch.	W. Clark.	R. W. Weir.	G. R. Lewthwaite.	Totals.
Rooms fumigated	124	119	83	182	508
Rooms sprayed .....	..	..	14	..	14
Bundles of Bedding, &c., sent for Steam Disinfection	115	122	113	141	491

TABLE G.—SHOWING SUMMARY OF VISITS BY INSPECTOR OF MEAT, &c.,
TO THE VARIOUS TRADES UNDER HIS SUPERVISION.

Places Inspected.	Number Existing.	Number Opened.	Number Closed.	Number of Visits.	Remarks.
Slaughtering Places	125	1,551	Including 2 Vans in Market Place.
Milkshops and Dairies	236	75	62	664	
Bakehouses	31	1	..	77	
Triperies	5	..	..	54
Fried-fish Shops	72	13	..	149	
Cowsheds	11	..	..	45
Fish-curing Places	6	..	..	14
Gut-scraping Places	1	..	1	7	
Tallow-boiling Places	2	..	..	4
Ice-cream Shops .....	?	..	..	..
Totals	489	89	63	2,565	

TABLE H.—SALE OF FOOD AND DRUGS ACTS.

The undermentioned samples have been examined by the Public Analyst for South Shields during 1903 :—

Description of Samples taken.	No.	Analyst's Report.	Proceedings and Result.
Milk	75	Genuine 60	None.
		Poor in non-fatty solids 2	"
		4.5% Deficient in non-fatty solids 1	Cautioned.
		9.1% " " 1	10/- and costs.
		4.3% Deficient in natural fat 1	Cautioned.
		5.0% " " 1	"
		6.3% " " 1	"
		11.0% " " 1	20/- and costs.
		19.6% " " 1	10/-
		25.6% " " 1	5/- and costs.
		22.0% " " and	
		7.7% Deficient in non-fatty solids 1	20/- and costs.
		5.8% Added Water 1	"
		5.9% " 1	"
		10.1% " 1	"
		7.6% " and	
		5.6% Deficient in natural fat 1	"
Butter	19	Genuine	None.
Lard	8	"	"
Tea	1	"	"
Coffee	2	"	"
Sugar	2	"	"
Cheese	1	"	"
Pepper	12	"	"
Mustard	6	"	"
Vinegar	7	"	"
Whiskey	5	"	"
Rum	5	"	"
Spirits of Nitre ..	2	"	"
Eucalyptus Oil ..	1	"	"
Sal. Volatile	1	"	"
Sweets	3	"	"
	150		

TABLE I.—PROCEEDINGS BEFORE THE JUSTICES UNDER THE FOOD AND DRUGS ACTS,
AND PUBLIC HEALTH ACT (Section 116).

DATE OF HEARING 1903.	OFFENCE.	RESULT.
February 26th	For having sold Milk which was adulterated with 10.1% added water	20/- and costs.
March 15th	For having sold Milk which was 19.6% short of natural fat	10/-
March 15th	For having sold Milk which was adulterated with 5.8% added water	20/- and costs.
March 15th	For having sold Milk which was adulterated with 7.6% added water	20/- and costs.
July 6th	For having sold Milk which was adulterated with 5.9% added water	20/- and costs.
September 2nd	For having sold Milk which was 11.0% short of natural fat	20/- and costs.
October 9th	For having sold Milk which was 9.1% short of non-fatty solids .	10/- and costs.
October 9th	For having sold Milk which was 25.6% short of natural fat	5/- and costs.
November 20th	For exposing for sale 118 Unsound Rabbits	£5 and costs.
December 21st	For having sold Milk which was 22% short of natural fat	20/- and costs.

TABLE J.—ARTICLES OF FOOD CONDEMNED AND
DESTROYED DURING THE YEAR, 1903.

Beef	5 Carcases and Offal (Tuberculosis).
	47 $\frac{3}{4}$ stone.
	7 Sets of Lungs.
	2 Livers.
	2 Boxes Kidneys.
	18 Oxtails.
Sheep	2 Carcases and Offal.
Tripe	8 Kegs.
Rabbits	119.
Ducks	2.
Fish	2 cwt.
	1 Cask Herring.
	6 Stone Salt Fish.
Carrots	18 Cwt.
Cauliflowers ...	8 Crates.
Lemons	1 Stone.
Grapes.....	1 Stone.
Fruit	Several Small Quantities.

